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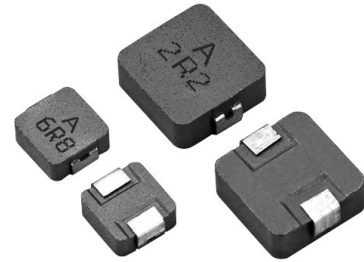


UPI A SERIES

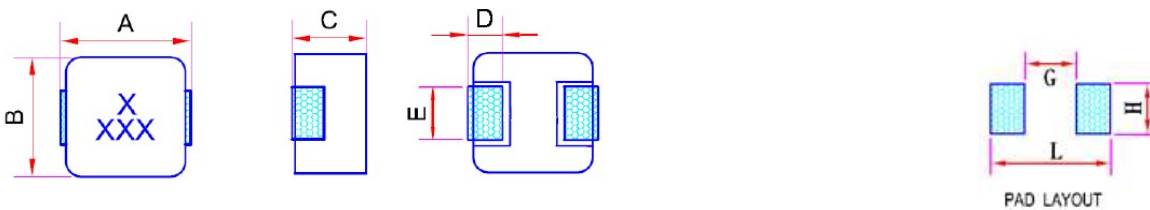
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

Applications :

- . PDA/Notebook/Desktop, and server applications.
- . DC/DC converters in distributed power systems.
- . DC/DC converter for Field Programmable Gate Array(FPGA).



Shape and Dimensions (Dimensions are in mm) :



| Item | A Max. | B Max. | C Max. | D | E | G | H | L |
|-----------|--------|--------|--------|---------|---------|-----|-----|------|
| UPIAS0603 | 7.3 | 6.8 | 3.0 | 1.6±0.3 | By each | 3.7 | 3.5 | 8.0 |
| UPIA0603 | 7.8 | 7.0 | 3.2 | 1.6±0.3 | By each | 3.7 | 3.5 | 8.0 |
| UPIA0604 | 7.8 | 7.0 | 4.2 | 1.6±0.3 | By each | 3.7 | 3.5 | 8.0 |
| UPIA1004 | 11.8 | 10.5 | 4.2 | 2.3±0.3 | 3.0±0.5 | 5.4 | 4.5 | 12.4 |
| UPIA1005 | 11.8 | 10.5 | 5.0 | 2.3±0.3 | 3.0±0.5 | 5.4 | 4.5 | 12.4 |
| UPIA1203 | 13.9 | 13.5 | 3.7 | 2.3±0.3 | 3.0±0.5 | 8.0 | 5.0 | 14.5 |
| UPIA1205 | 13.9 | 13.5 | 5.2 | 2.3±0.3 | 3.0±0.5 | 8.0 | 5.0 | 14.5 |
| UPIA1207 | 13.9 | 13.5 | 7.0 | 2.3±0.3 | 3.0±0.5 | 8.0 | 5.0 | 14.5 |

Features :

- . Low profile and low DCR.
- . Shielded construction.
- . handles high transient current spikes without saturation
- . **A** type frequency up to **1MHz**.
- . Ultra Low buzz noise, due to composite construction.
- . RoHS compliant.

Characteristics :

- . Saturation Current (Isat) : The current causes L_0 dropped approximately 30% typically.
- . Temperature Rise Current(Irms) : The current causes the coil temperature rised approximately $\Delta T=40^\circ\text{C}$ without core Loss.
- . Operating Temperature : -55°C to 125°C .

Product Identification :

UPI AS 0603 - 2R2 M

(1) (2) (3) (4) (5)

- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style : **A**-Powder Type **S**-small Size.
- (3) Dimensions : **0603** is size.
- (4) Inductance: **2R2** for **2.2** uH.
- (5) Inductance tolerance: **M**: $\pm 20\%$.

Test equipments :

- . L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- . DCR tested by Milli-ohm meter.
- . Electrical specifications at 25°C .

Handling and precautions :

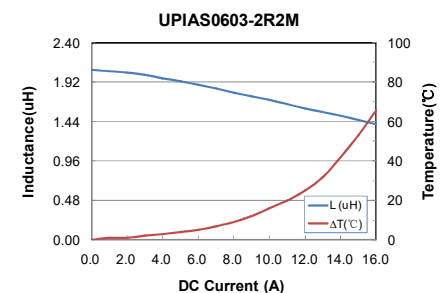
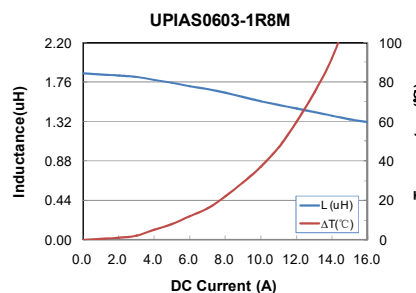
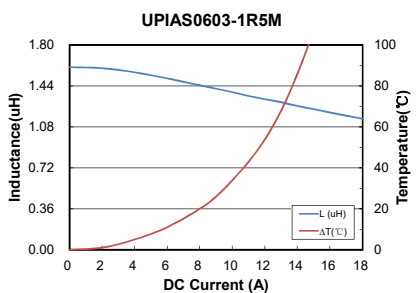
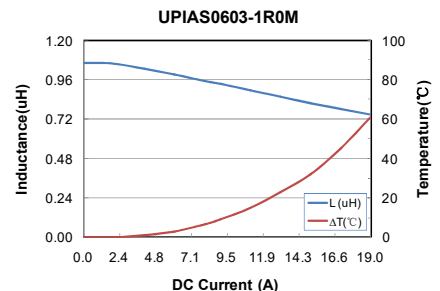
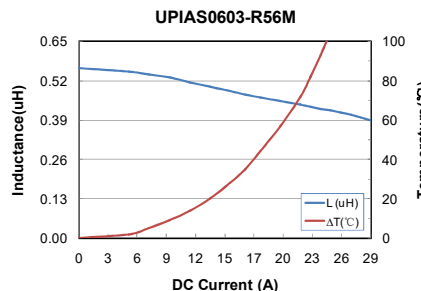
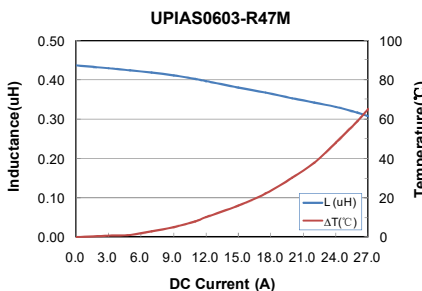
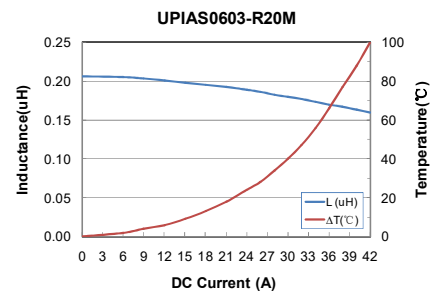
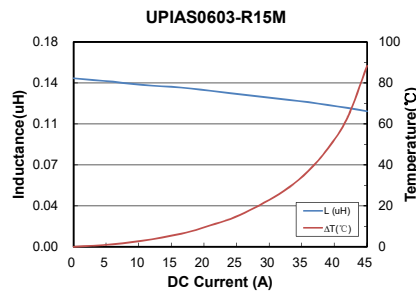
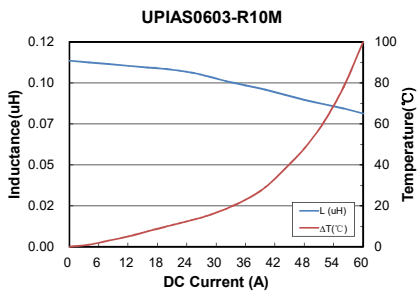
- . Please contact us before cleaning this product.



● UPIAS0603 series

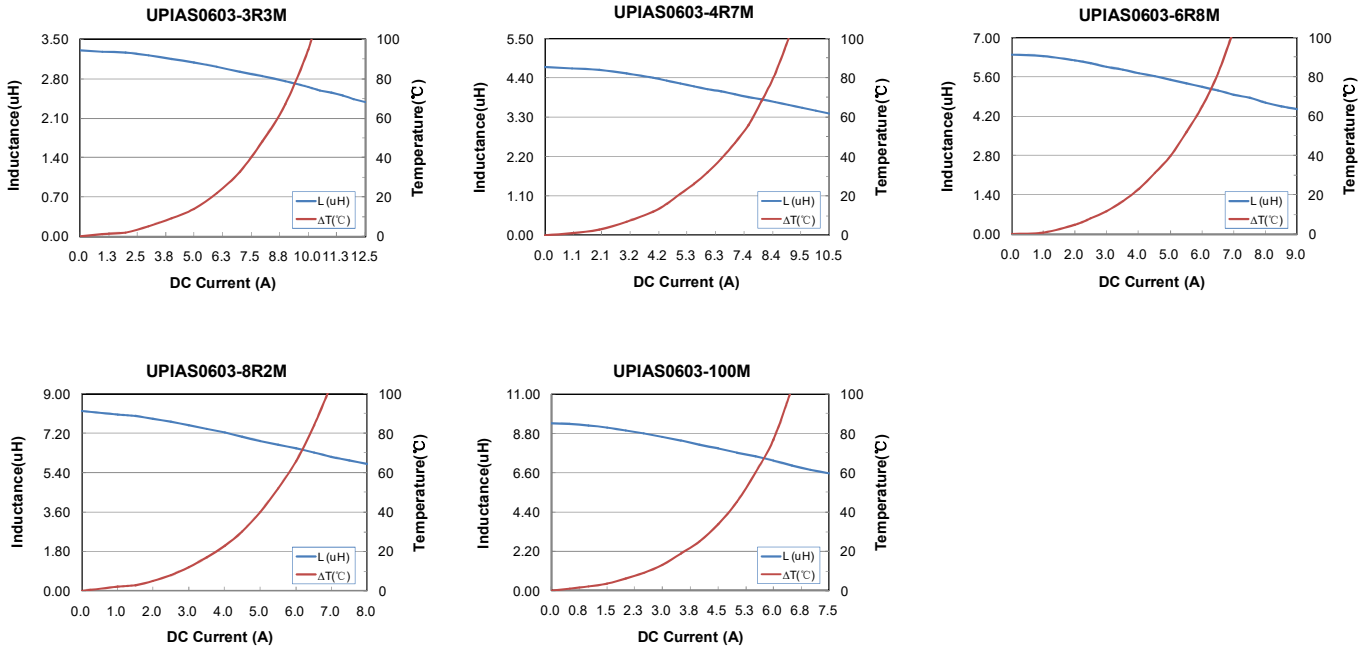
| Part No. | Inductance @100kHz L_0 (μH) | DCR ($\text{m}\Omega$) | | I sat (A) Typ. | I rms (A) Typ. | E ± 0.5 |
|----------------|---|--------------------------|---------|-------------------|-------------------|----------------|
| | | Typical | Maximum | | | |
| UPIAS0603-R10M | 0.10 | 0.9 | 1.7 | 42.0 | 32.0 | 2.0 |
| UPIAS0603-R15M | 0.15 | 1.5 | 2.5 | 38.0 | 26.0 | 2.0 |
| UPIAS0603-R20M | 0.20 | 1.3 | 3.0 | 36.0 | 24.0 | 2.0 |
| UPIAS0603-R47M | 0.47 | 3.6 | 4.2 | 26.0 | 17.5 | 3.0 |
| UPIAS0603-R56M | 0.56 | 4.3 | 4.8 | 24.0 | 16.5 | 3.0 |
| UPIAS0603-1R0M | 1.0 | 7.8 | 10.0 | 16.0 | 11.0 | 3.0 |
| UPIAS0603-1R5M | 1.5 | 12.7 | 15.0 | 14.0 | 9.0 | 3.0 |
| UPIAS0603-1R8M | 1.8 | 14.0 | 20.0 | 12.0 | 8.0 | 3.0 |
| UPIAS0603-2R2M | 2.2 | 15.2 | 20.0 | 12.0 | 8.0 | 3.0 |
| UPIAS0603-3R3M | 3.3 | 23.1 | 30.0 | 10.0 | 6.0 | 3.0 |
| UPIAS0603-4R7M | 4.7 | 37.0 | 40.0 | 6.5 | 5.5 | 3.0 |
| UPIAS0603-6R8M | 6.8 | 52.0 | 60.0 | 6.0 | 4.5 | 3.0 |
| UPIAS0603-8R2M | 8.2 | 63.5 | 68.0 | 5.5 | 4.0 | 3.0 |
| UPIAS0603-100M | 10.0 | 78.0 | 105.0 | 5.0 | 3.0 | 3.0 |

Typical performance curves :



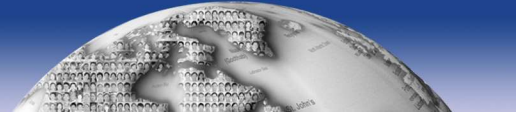


Typical performance curves :

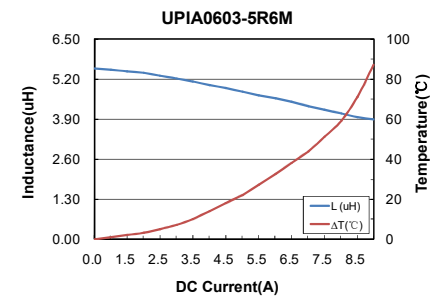
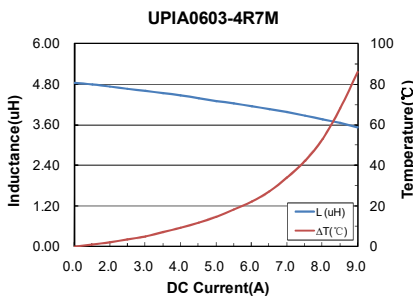
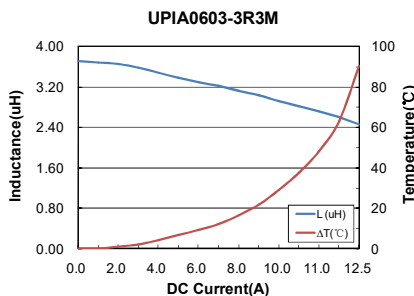
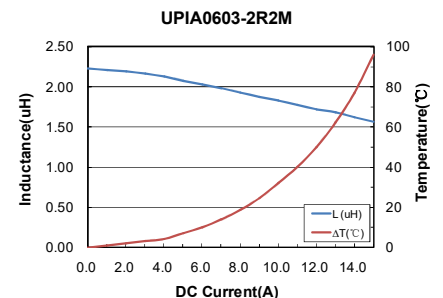
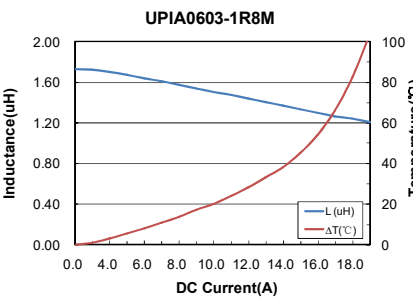
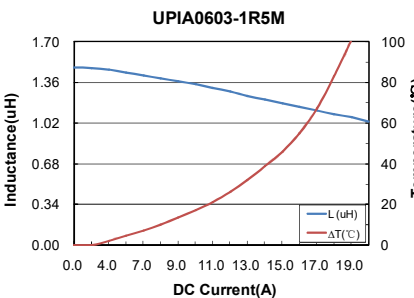
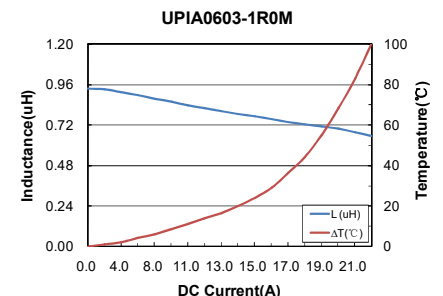
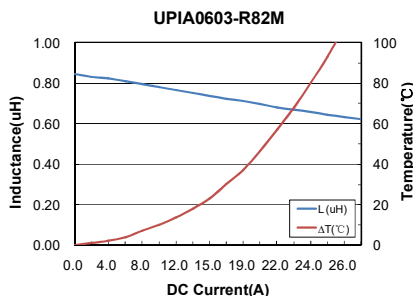
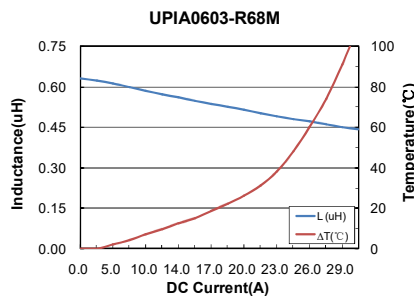
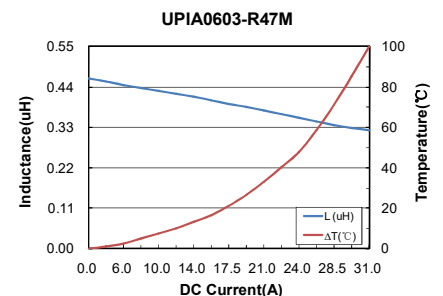
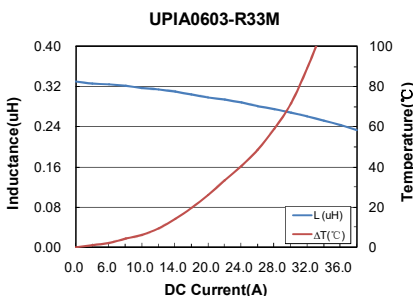
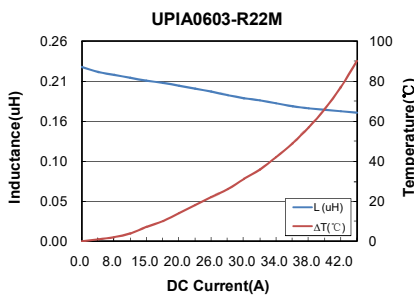
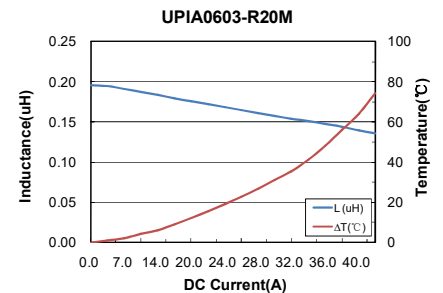
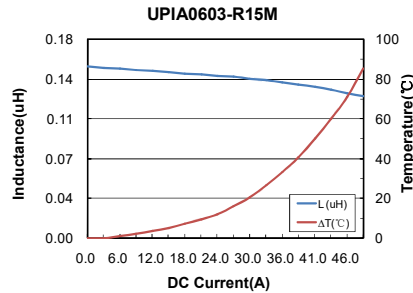
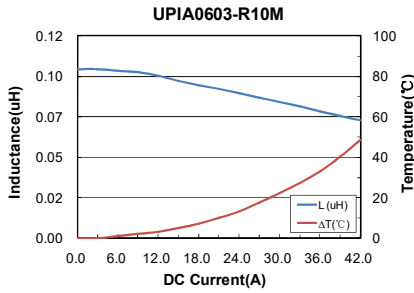


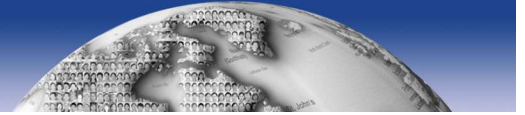
● UPIA0603 series

| Part No. | Inductance @100kHz L_0 (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|-------------------------------------|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIA0603-R10M | 0.10 | 1.0 | 1.7 | 42.0 | 32.5 | 2.0 |
| UPIA0603-R15M | 0.15 | 1.4 | 2.5 | 38.0 | 26.0 | 2.0 |
| UPIA0603-R20M | 0.20 | 1.4 | 3.0 | 36.0 | 24.0 | 2.0 |
| UPIA0603-R22M | 0.22 | 2.3 | 2.8 | 36.0 | 23.0 | 2.0 |
| UPIA0603-R33M | 0.33 | 2.8 | 3.9 | 30.0 | 20.0 | 3.0 |
| UPIA0603-R47M | 0.47 | 3.6 | 4.2 | 26.0 | 17.5 | 3.0 |
| UPIA0603-R56M | 0.56 | 4.5 | 4.8 | 24.0 | 16.5 | 3.0 |
| UPIA0603-R68M | 0.68 | 5.0 | 5.5 | 23.0 | 15.5 | 3.0 |
| UPIA0603-R82M | 0.82 | 7.5 | 8.0 | 20.0 | 13.0 | 3.0 |
| UPIA0603-1R0M | 1.0 | 7.8 | 10.0 | 16.0 | 11.0 | 3.0 |
| UPIA0603-1R5M | 1.5 | 10.9 | 15.0 | 14.0 | 9.0 | 3.0 |
| UPIA0603-1R8M | 1.8 | 12.9 | 18.0 | 12.0 | 8.0 | 3.0 |
| UPIA0603-2R2M | 2.2 | 17.1 | 20.0 | 12.0 | 8.0 | 3.0 |
| UPIA0603-3R3M | 3.3 | 26.5 | 30.0 | 10.0 | 6.0 | 3.0 |
| UPIA0603-4R7M | 4.7 | 37.6 | 40.0 | 6.5 | 5.5 | 3.0 |
| UPIA0603-5R6M | 5.6 | 46.0 | 50.0 | 6.0 | 5.0 | 3.0 |
| UPIA0603-6R8M | 6.8 | 50.5 | 60.0 | 6.0 | 4.5 | 3.0 |
| UPIA0603-8R2M | 8.2 | 62.5 | 68.0 | 5.5 | 4.0 | 3.0 |
| UPIA0603-100M | 10.0 | 101 | 105.0 | 5.0 | 3.0 | 3.0 |

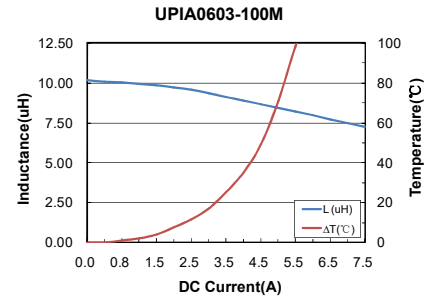
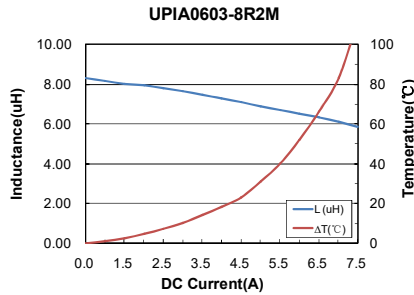
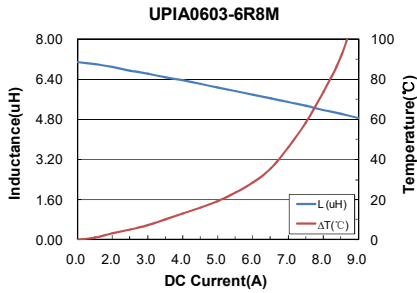


Typical performance curves :





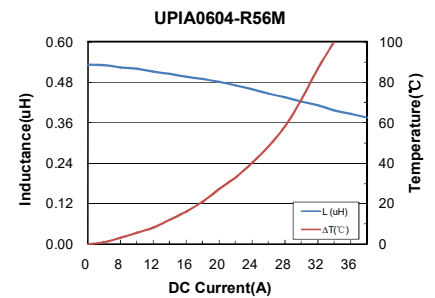
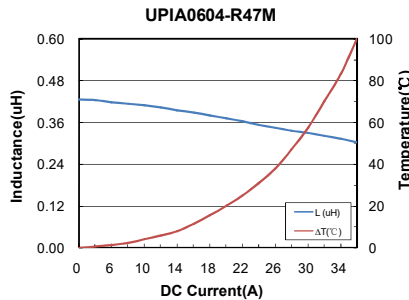
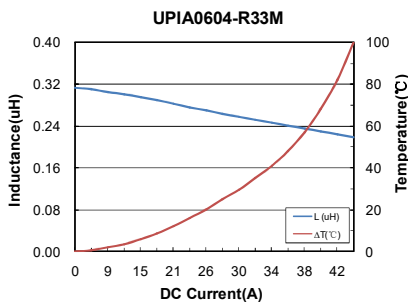
Typical performance curves :

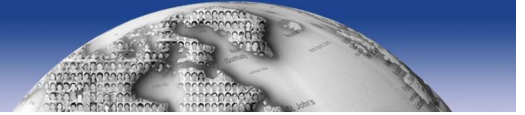


● UPIA0604 series

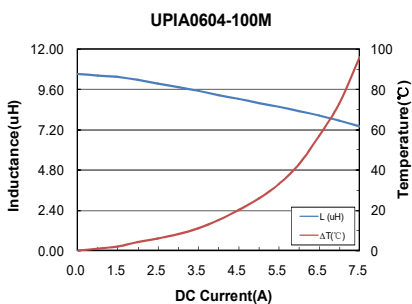
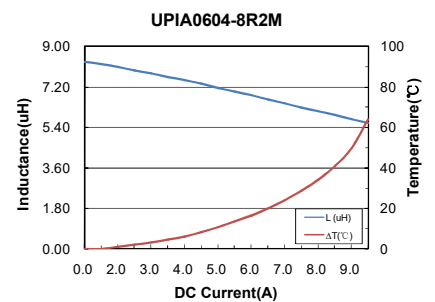
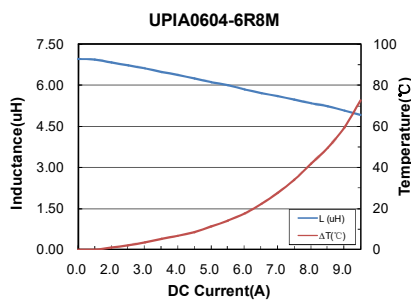
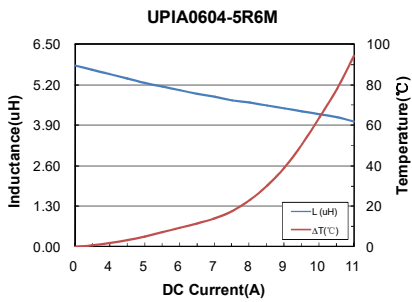
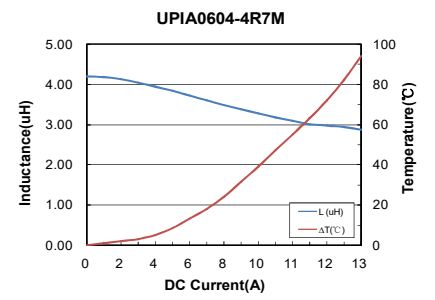
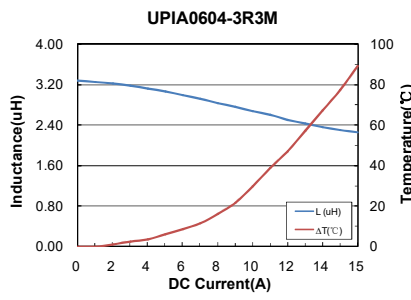
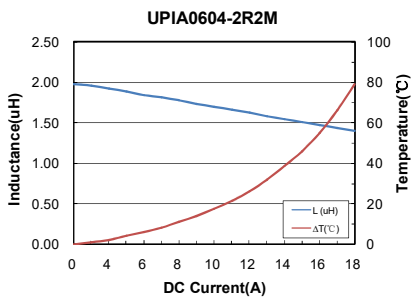
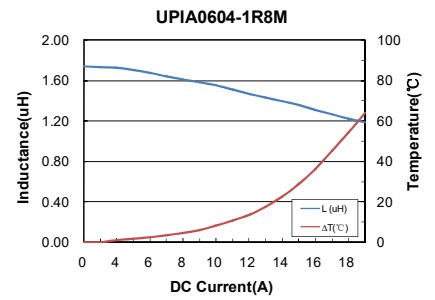
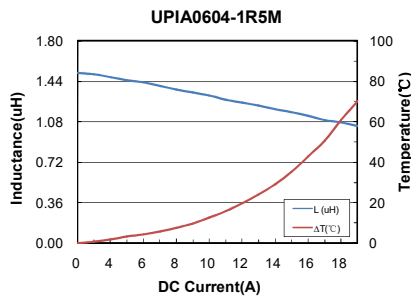
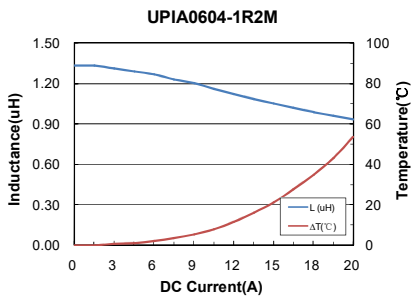
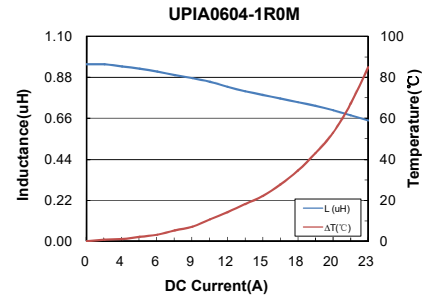
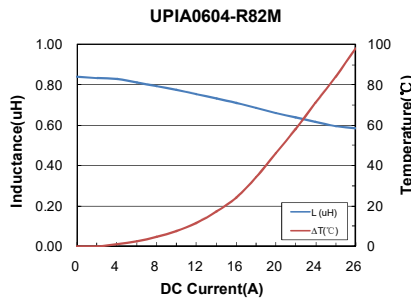
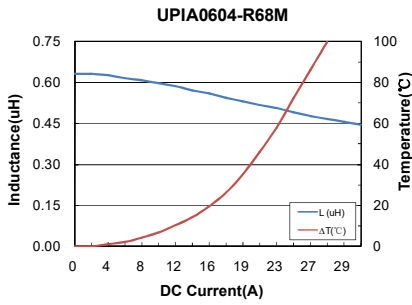
| Part No. | Inductance @100kHz L_0 (uH) | DCR (mΩ) | | I_{sat} (A) Typ. | I_{rms} (A) Typ. | E mm ±0.5 |
|---------------|-------------------------------------|------------|---------|--------------------------|--------------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIA0604-R33M | 0.33 | 1.9 | 2.1 | 32.0 | 25.0 | 2.0 |
| UPIA0604-R47M | 0.47 | 2.22 | 2.5 | 30.0 | 20.0 | 2.0 |
| UPIA0604-R56M | 0.56 | 2.8 | 3.0 | 29.0 | 19.0 | 2.0 |
| UPIA0604-R68M | 0.68 | 3.3 | 3.8 | 28.0 | 17.0 | 2.0 |
| UPIA0604-R82M | 0.82 | 4.85 | 5.2 | 24.0 | 16.0 | 3.0 |
| UPIA0604-1R0M | 1.0 | 5.3 | 5.8 | 20.0 | 15.0 | 3.0 |
| UPIA0604-1R2M | 1.2 | 7.2 | 7.6 | 19.0 | 15.0 | 3.0 |
| UPIA0604-1R5M | 1.5 | 7.8 | 8.4 | 18.0 | 14.0 | 3.0 |
| UPIA0604-1R8M | 1.8 | 8.5 | 8.8 | 15.0 | 13.0 | 3.0 |
| UPIA0604-2R2M | 2.2 | 11.2 | 16.0 | 14.0 | 12.0 | 3.0 |
| UPIA0604-3R3M | 3.3 | 16.6 | 18.0 | 13.0 | 10.0 | 3.0 |
| UPIA0604-4R7M | 4.7 | 20.2 | 21.0 | 9.0 | 7.0 | 3.0 |
| UPIA0604-5R6M | 5.6 | 28.7 | 30.0 | 7.0 | 5.5 | 3.0 |
| UPIA0604-6R8M | 6.8 | 28.7 | 30.0 | 7.0 | 5.5 | 3.0 |
| UPIA0604-8R2M | 8.2 | 33.5 | 36.0 | 6.5 | 4.5 | 3.0 |
| UPIA0604-100M | 10.0 | 53.1 | 60.0 | 5.0 | 4.5 | 3.0 |

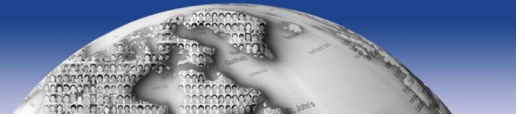
Typical performance curves :





Typical performance curves :

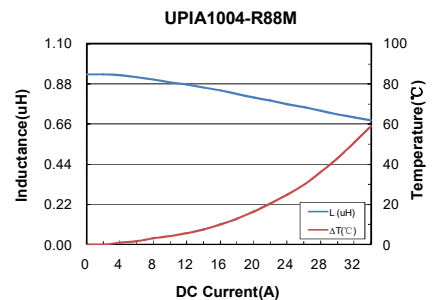
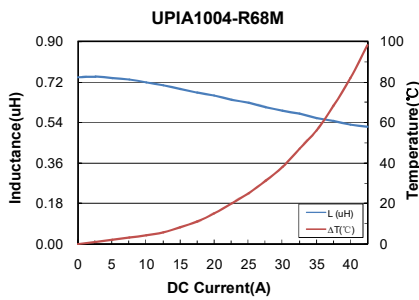
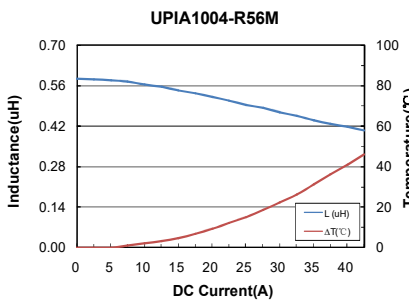
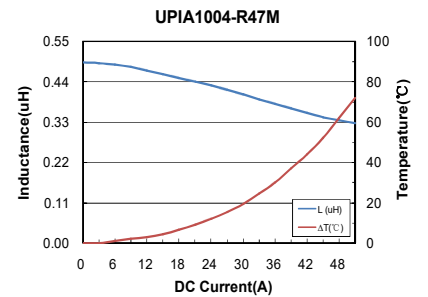
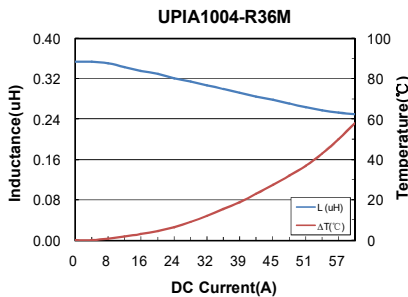
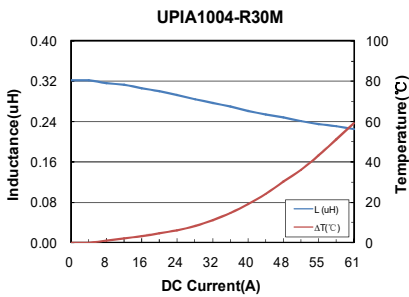


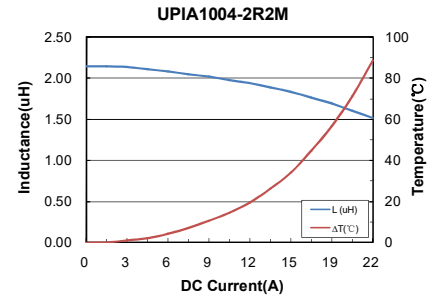
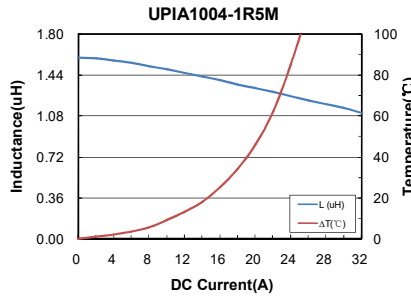
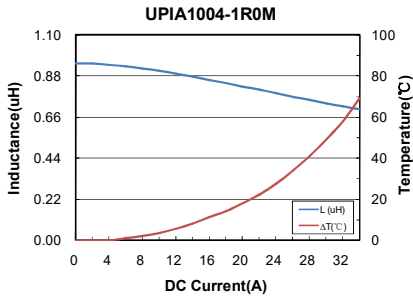
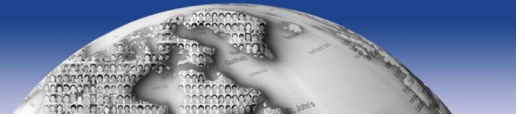


● **UPIA1004 series**

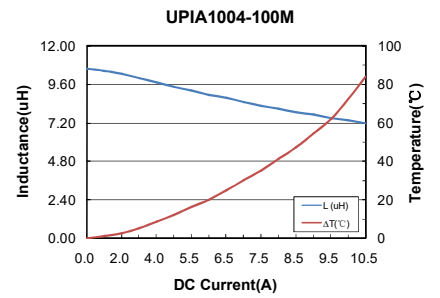
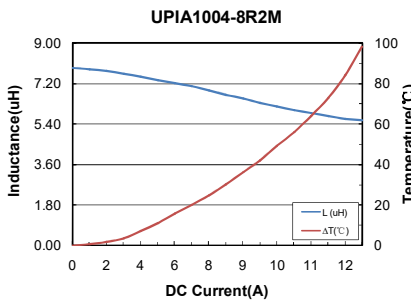
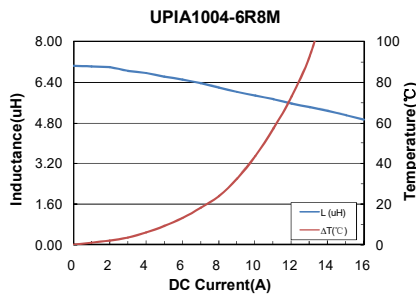
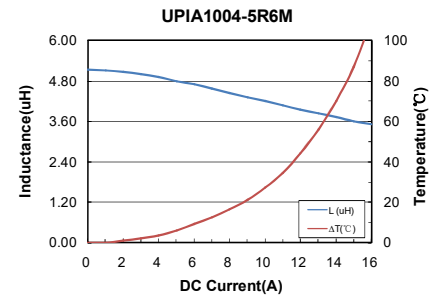
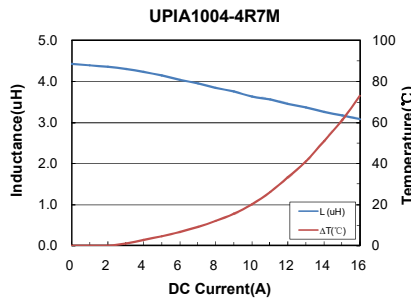
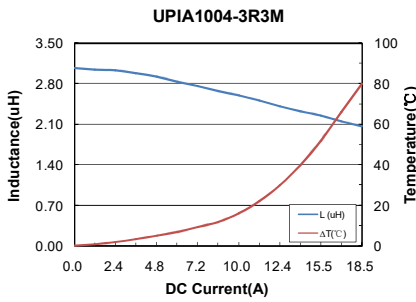
| Part No. | Inductance @100kHz L_0 (μH) | DCR ($\text{m}\Omega$) | | I sat (A) Typ. | I rms (A) Typ. | E mm ± 0.5 |
|---------------|---|--------------------------|---------|-------------------|-------------------|----------------|
| | | Typical | Maximum | | | |
| UPIA1004-R30M | 0.30 | 1.0 | 1.4 | 40.0 | 28.0 | 3.0 |
| UPIA1004-R36M | 0.36 | 1.0 | 1.4 | 40.0 | 28.0 | 3.0 |
| UPIA1004-R47M | 0.47 | 1.4 | 1.6 | 38.0 | 26.0 | 3.0 |
| UPIA1004-R56M | 0.56 | 1.5 | 1.9 | 36.0 | 25.0 | 3.0 |
| UPIA1004-R68M | 0.68 | 1.7 | 2.4 | 32.0 | 23.0 | 3.0 |
| UPIA1004-R88M | 0.88 | 2.4 | 3.0 | 30.0 | 21.0 | 3.0 |
| UPIA1004-1R0M | 1.0 | 2.7 | 3.5 | 28.0 | 20.0 | 3.0 |
| UPIA1004-1R5M | 1.5 | 7.1 | 7.5 | 20.0 | 12.0 | 3.0 |
| UPIA1004-2R2M | 2.2 | 7.5 | 8.56 | 16.5 | 11.5 | 3.0 |
| UPIA1004-3R3M | 3.3 | 9.7 | 11.8 | 14.0 | 10.0 | 3.0 |
| UPIA1004-4R7M | 4.7 | 12.5 | 13.5 | 13.0 | 8.0 | 3.0 |
| UPIA1004-5R6M | 5.6 | 15.5 | 16.0 | 12.0 | 7.0 | 3.0 |
| UPIA1004-6R8M | 6.8 | 21.3 | 24.0 | 9.50 | 7.0 | 3.0 |
| UPIA1004-8R2M | 8.2 | 29.1 | 32.5 | 8.00 | 5.0 | 3.0 |
| UPIA1004-100M | 10.0 | 31.5 | 35.0 | 7.00 | 5.0 | 3.0 |

Typical performance curves :



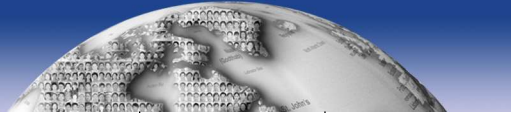


Typical performance curves :



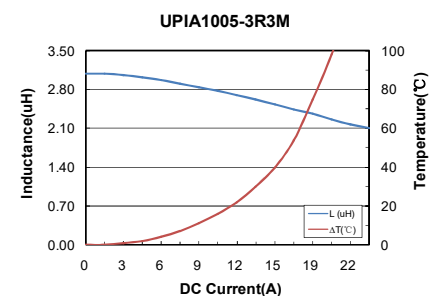
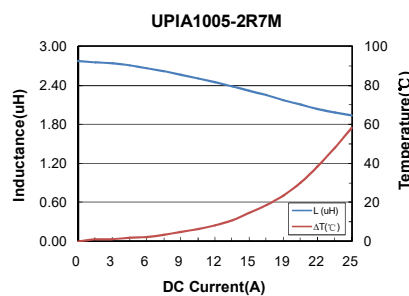
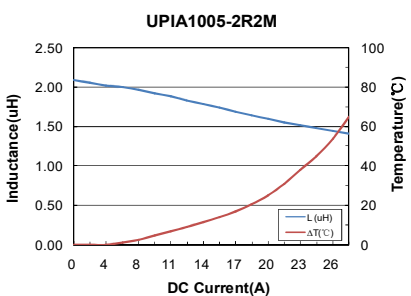
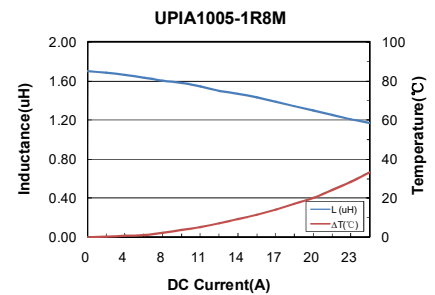
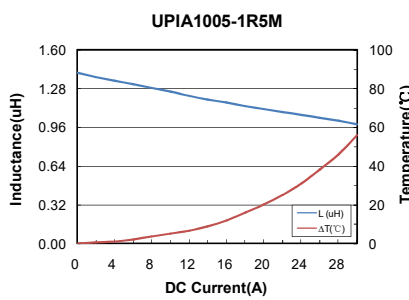
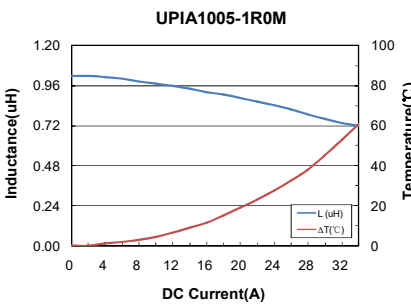
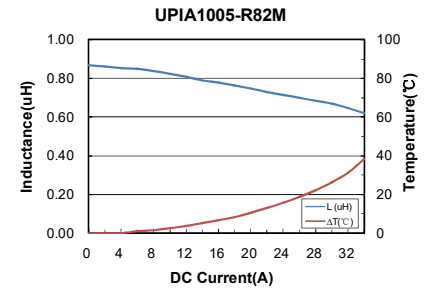
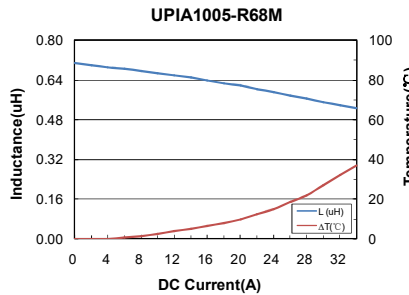
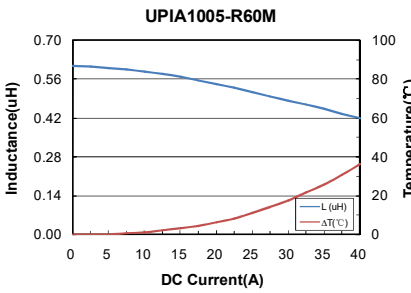
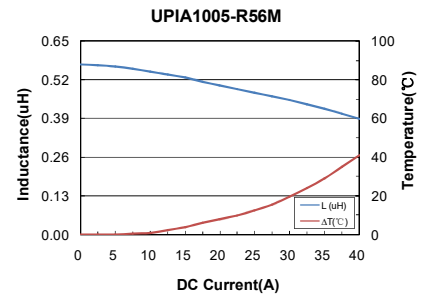
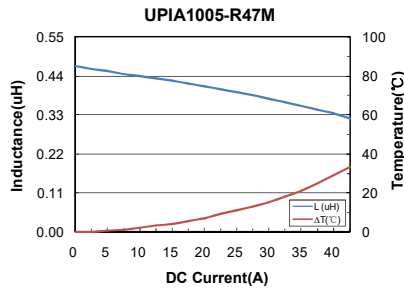
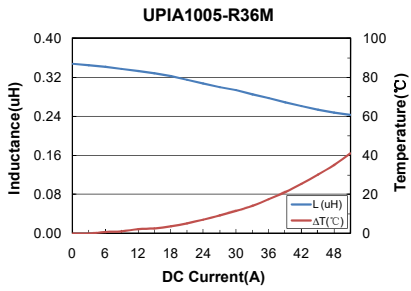
● **UPIA1005 series**

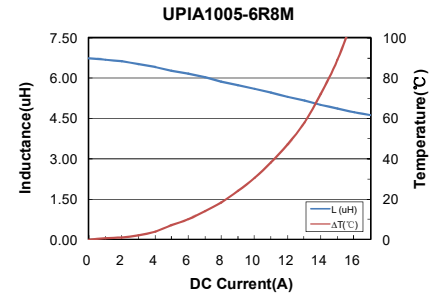
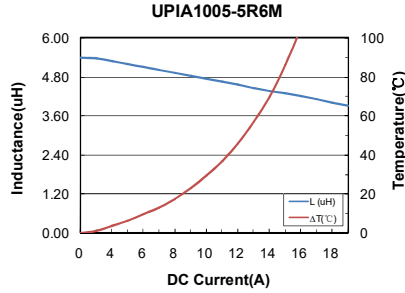
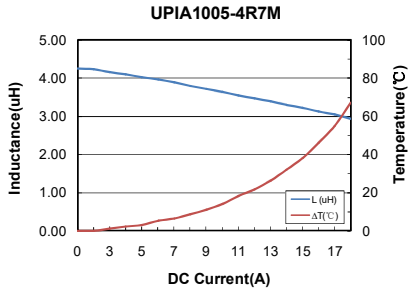
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|--|------------|---------|----------------|----------------|-----------|
| | | Typical | Maximum | | | |
| UPIA1005-R36M | 0.36 | 0.7 | 0.92 | 40.0 | 35.0 | 3.0 |
| UPIA1005-R47M | 0.47 | 0.92 | 1.04 | 38.0 | 32.0 | 3.0 |
| UPIA1005-R56M | 0.56 | 1.1 | 1.21 | 36.0 | 30.0 | 3.0 |
| UPIA1005-R60M | 0.60 | 1.25 | 1.5 | 32.0 | 29.2 | 3.0 |
| UPIA1005-R68M | 0.68 | 1.35 | 1.5 | 32.0 | 29.2 | 3.0 |
| UPIA1005-R82M | 0.82 | 1.55 | 1.86 | 30.0 | 26.0 | 3.0 |
| UPIA1005-1R0M | 1.0 | 2.1 | 2.53 | 28.0 | 24.0 | 3.0 |
| UPIA1005-1R5M | 1.5 | 2.7 | 3.02 | 22.0 | 20.0 | 3.0 |
| UPIA1005-1R8M | 1.8 | 3.5 | 4.03 | 20.0 | 18.0 | 3.0 |
| UPIA1005-2R2M | 2.2 | 4.1 | 4.6 | 20.0 | 17.0 | 3.0 |
| UPIA1005-2R7M | 2.7 | 7.3 | 8.5 | 18.0 | 14.0 | 3.0 |
| UPIA1005-3R3M | 3.3 | 8.2 | 10.0 | 15.0 | 12.0 | 3.0 |
| UPIA1005-4R7M | 4.7 | 9.2 | 12.0 | 13.0 | 10.0 | 3.0 |
| UPIA1005-5R6M | 5.6 | 14.3 | 16.0 | 12.0 | 9.0 | 3.0 |



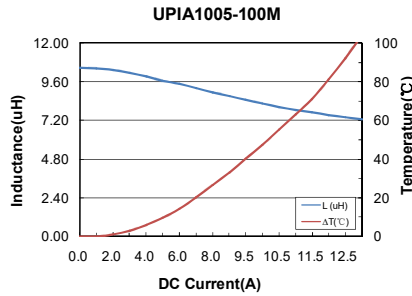
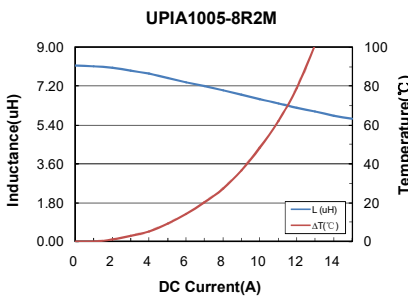
| | | | | | | |
|---------------|------|------|------|------|-----|-----|
| UPIA1005-6R8M | 6.8 | 16.0 | 20.0 | 10.0 | 8.0 | 3.0 |
| UPIA1005-8R2M | 8.2 | 22.4 | 24.0 | 9.0 | 7.5 | 3.0 |
| UPIA1005-100M | 10.0 | 24.7 | 28.0 | 8.0 | 7.0 | 3.0 |

Typical performance curves :



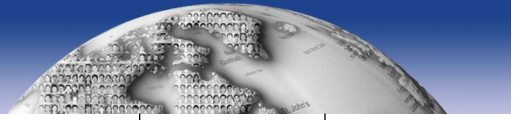


Typical performance curves :



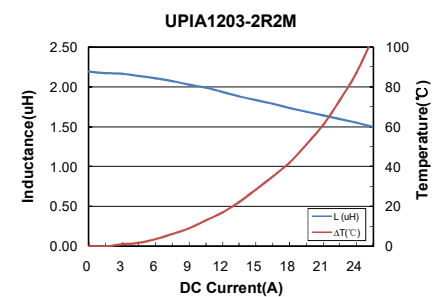
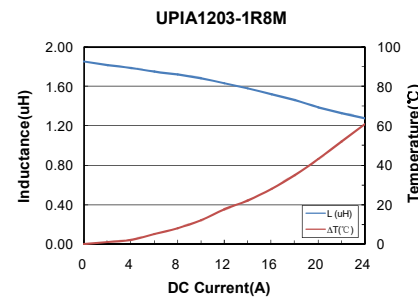
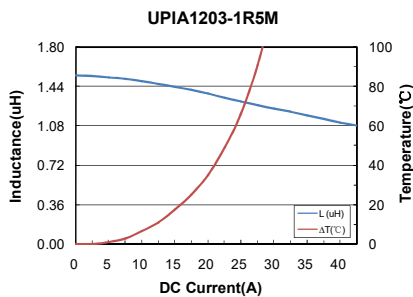
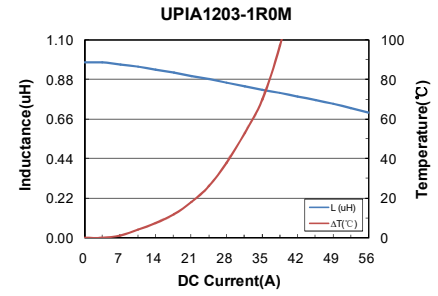
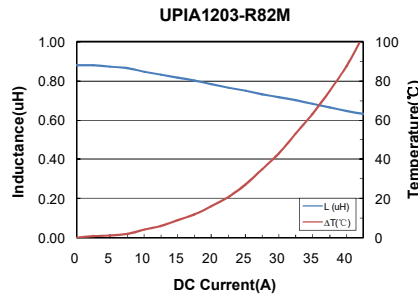
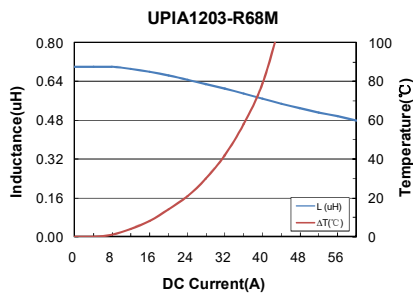
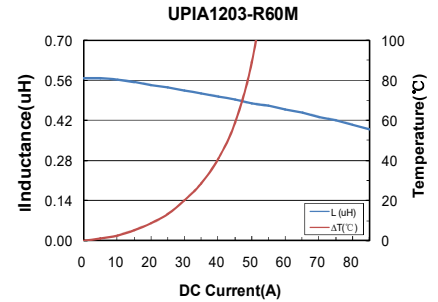
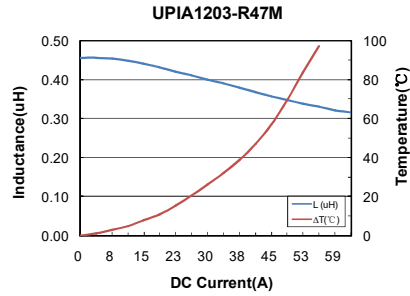
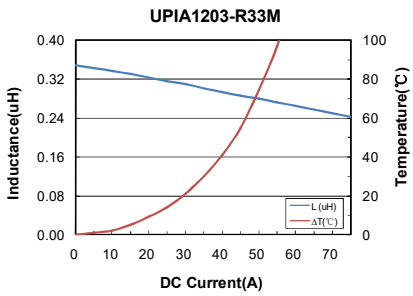
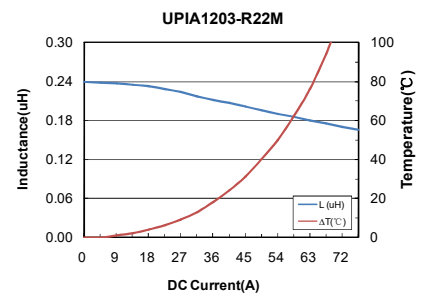
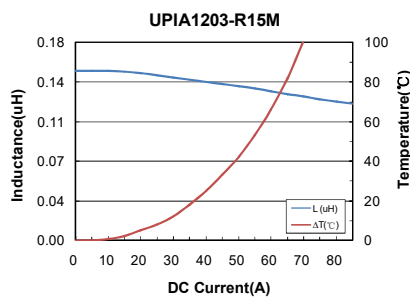
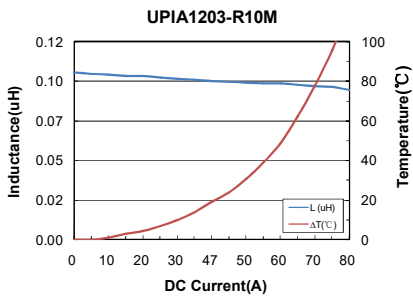
● **UPIA1203 series**

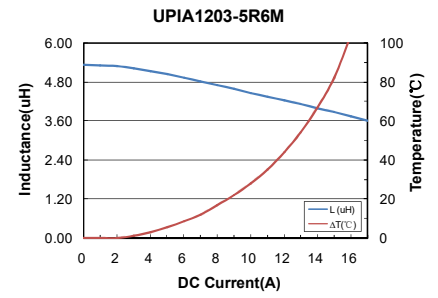
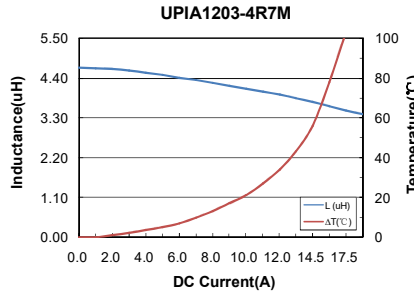
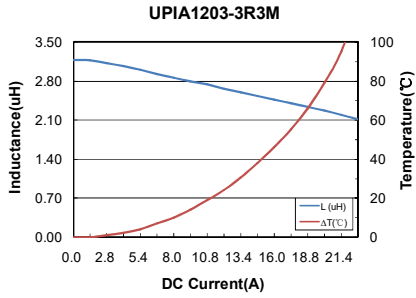
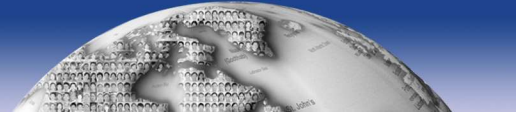
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|---|------------|---------|-------------------|-------------------|-----------|
| | | Typical | Maximum | | | |
| UPIA1203-R10M | 0.10 | 0.6 | 0.96 | 56.0 | 43.0 | 3.0 |
| UPIA1203-R15M | 0.15 | 0.9 | 1.2 | 50.0 | 41.0 | 3.0 |
| UPIA1203-R22M | 0.22 | 0.82 | 1.3 | 50.0 | 38.5 | 3.0 |
| UPIA1203-R33M | 0.33 | 1.25 | 1.5 | 50.0 | 36.5 | 3.0 |
| UPIA1203-R47M | 0.47 | 1.3 | 2.0 | 44.0 | 32.0 | 3.0 |
| UPIA1203-R60M | 0.60 | 2.2 | 2.5 | 42.0 | 29.0 | 3.0 |
| UPIA1203-R68M | 0.68 | 2.45 | 2.5 | 40.0 | 28.0 | 3.0 |
| UPIA1203-R82M | 0.82 | 2.3 | 3.0 | 38.0 | 25.0 | 3.0 |
| UPIA1203-1R0M | 1.0 | 3.2 | 3.5 | 36.0 | 24.0 | 3.0 |
| UPIA1203-1R5M | 1.5 | 5.1 | 5.5 | 28.0 | 19.0 | 3.0 |
| UPIA1203-1R8M | 1.8 | 5.7 | 7.0 | 24.0 | 16.5 | 3.0 |
| UPIA1203-2R2M | 2.2 | 6.7 | 8.0 | 20.0 | 16.0 | 3.0 |
| UPIA1203-3R3M | 3.3 | 9.7 | 12.0 | 18.0 | 12.0 | 3.0 |
| UPIA1203-4R7M | 4.7 | 14.0 | 15.0 | 16.0 | 10.0 | 3.0 |



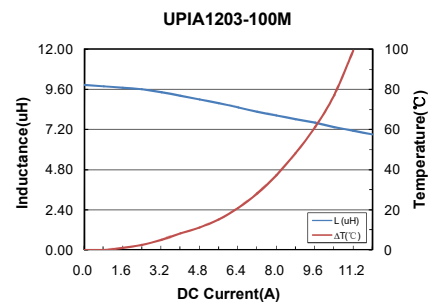
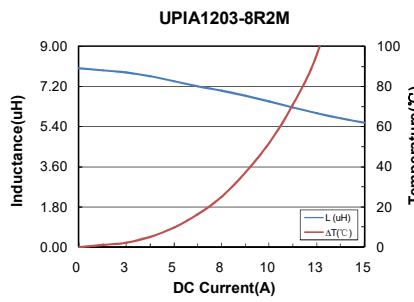
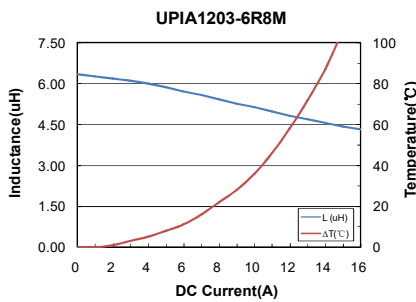
| | | | | | | |
|---------------|------|------|------|------|-----|-----|
| UPIA1203-5R6M | 5.6 | 16.7 | 18.0 | 14.0 | 9.5 | 3.0 |
| UPIA1203-6R8M | 6.8 | 17.5 | 22.0 | 13.0 | 9.0 | 3.0 |
| UPIA1203-8R2M | 8.2 | 25.5 | 28.0 | 11.0 | 8.0 | 3.0 |
| UPIA1203-100M | 10.0 | 33.7 | 35.0 | 10.0 | 7.0 | 3.0 |

Typical performance curves :





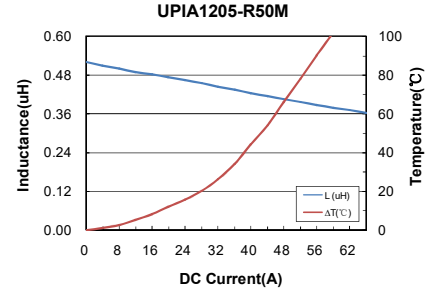
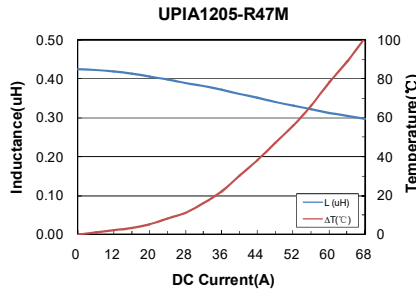
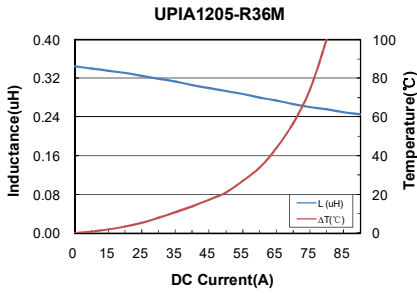
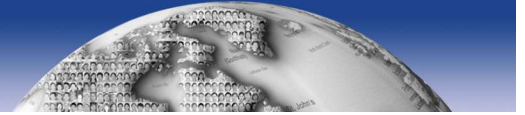
Typical performance curves :



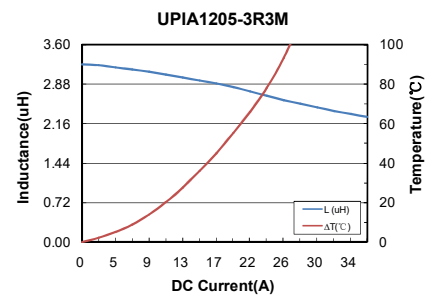
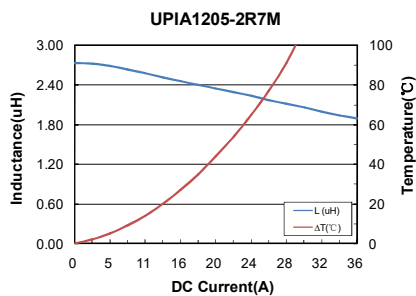
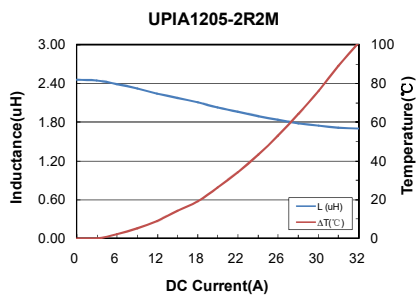
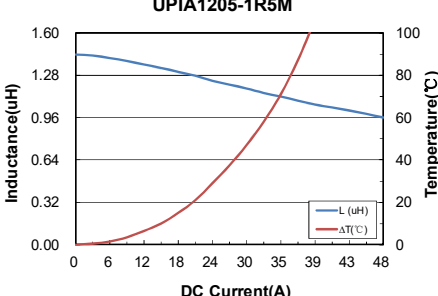
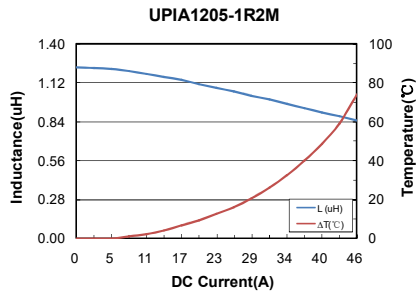
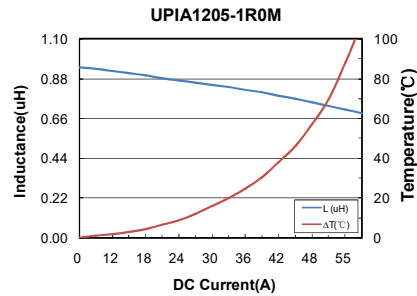
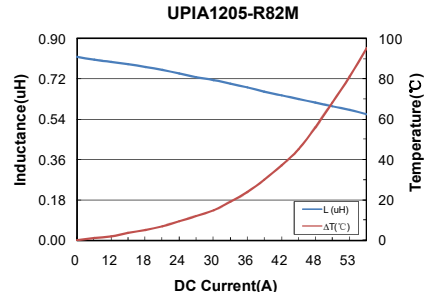
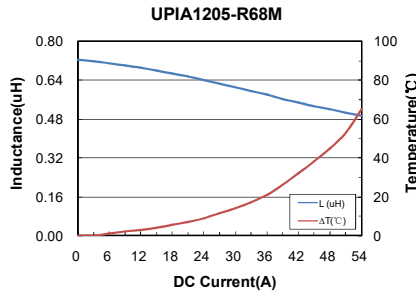
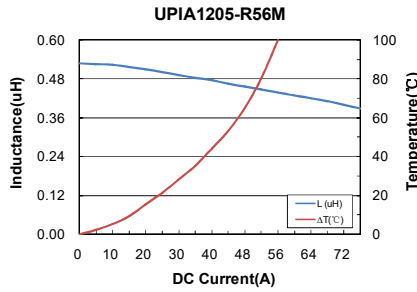
● **UPIA1205 series**

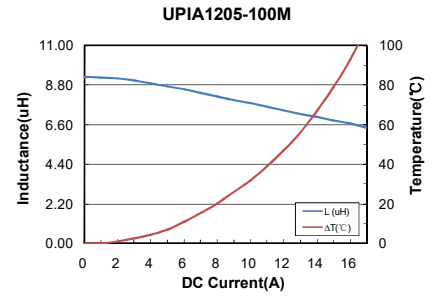
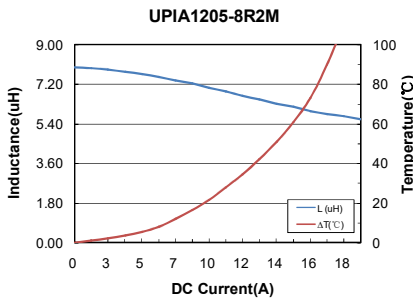
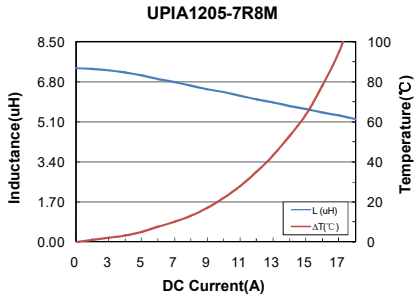
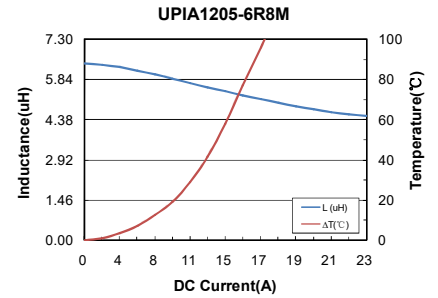
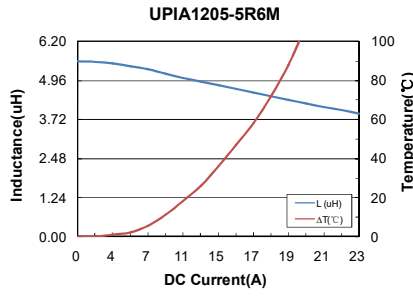
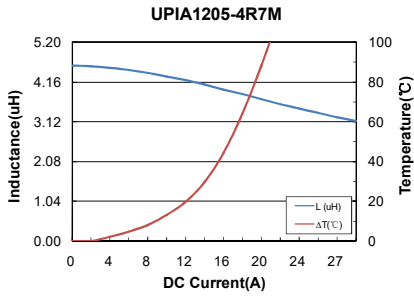
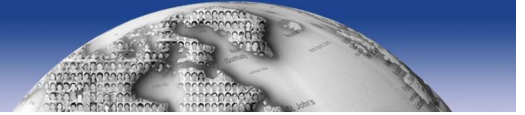
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|--|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIA1205-R36M | 0.36 | 1.0 | 1.1 | 75.0 | 41.0 | 3.0 |
| UPIA1205-R47M | 0.47 | 1.1 | 1.3 | 65.0 | 38.0 | 3.0 |
| UPIA1205-R50M | 0.50 | 1.1 | 1.5 | 55.0 | 36.0 | 3.0 |
| UPIA1205-R56M | 0.56 | 1.4 | 1.5 | 55.0 | 36.0 | 3.0 |
| UPIA1205-R68M | 0.68 | 1.4 | 1.7 | 54.0 | 34.0 | 3.0 |
| UPIA1205-R82M | 0.82 | 2.1 | 2.3 | 53.0 | 31.0 | 3.0 |
| UPIA1205-1R0M | 1.0 | 2.2 | 2.5 | 50.0 | 29.0 | 3.0 |
| UPIA1205-1R2M | 1.2 | 2.2 | 2.5 | 46.0 | 25.0 | 3.0 |
| UPIA1205-1R5M | 1.5 | 3.5 | 4.1 | 48.0 | 23.0 | 3.0 |
| UPIA1205-2R2M | 2.2 | 4.4 | 5.5 | 32.0 | 20.0 | 3.0 |
| UPIA1205-2R7M | 2.7 | 7.2 | 8.2 | 32.0 | 18.0 | 3.0 |
| UPIA1205-3R3M | 3.3 | 7.8 | 9.2 | 32.0 | 15.0 | 3.0 |
| UPIA1205-4R7M | 4.7 | 13.7 | 15.0 | 27.0 | 12.0 | 3.0 |
| UPIA1205-5R6M | 5.6 | 14.2 | 16.5 | 22.0 | 11.5 | 3.0 |
| UPIA1205-6R8M | 6.8 | 17.2 | 18.5 | 21.0 | 11.0 | 3.0 |
| UPIA1205-7R8M | 7.8 | 17.2 | 20.5 | 18.0 | 10.0 | 3.0 |
| UPIA1205-8R2M | 8.2 | 17.5 | 22.5 | 12.0 | 8.50 | 3.0 |
| UPIA1205-100M | 10.0 | 21.5 | 25.5 | 9.5 | 7.0 | 3.0 |

Typical performance curves :



Typical performance curves :

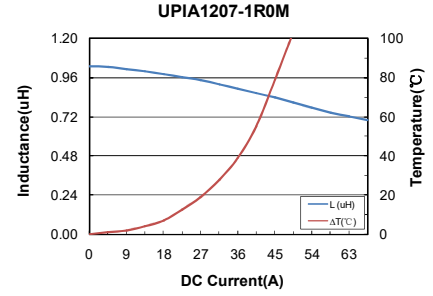
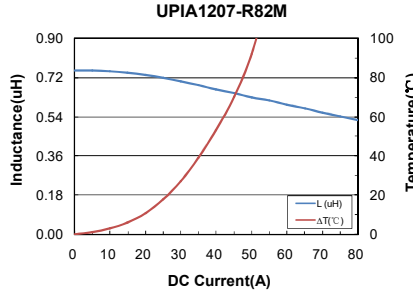
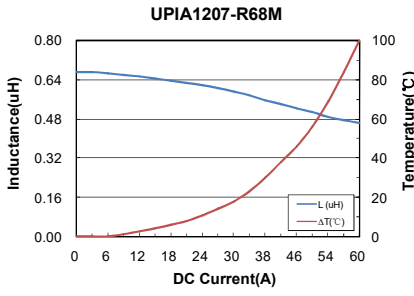
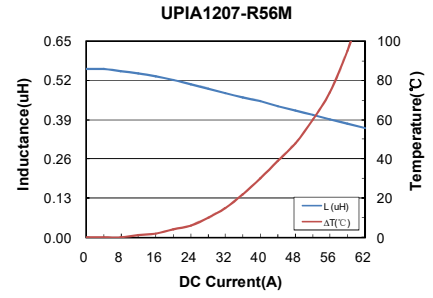
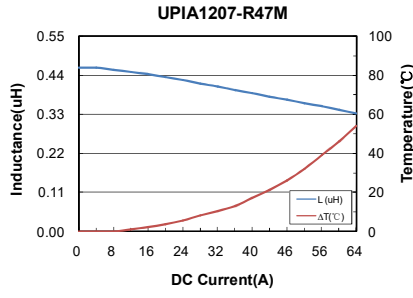
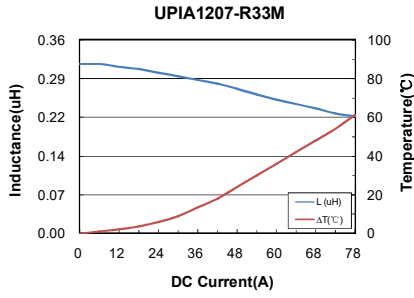
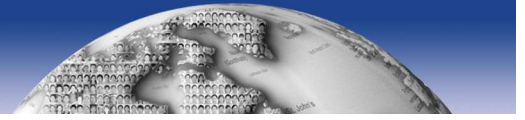




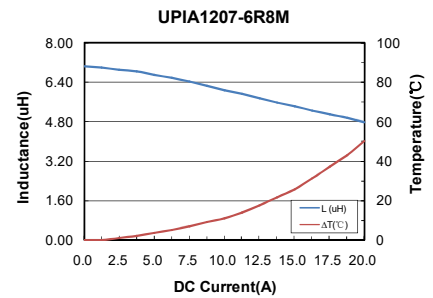
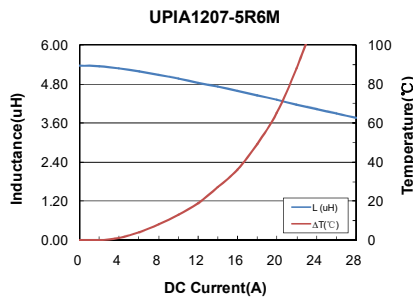
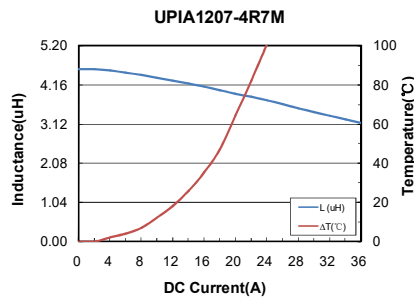
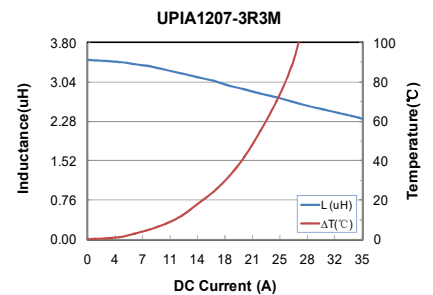
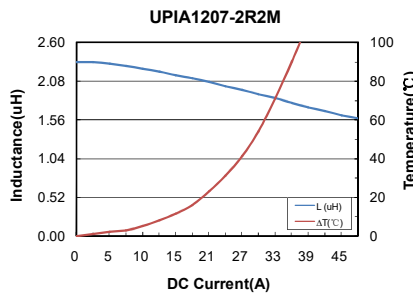
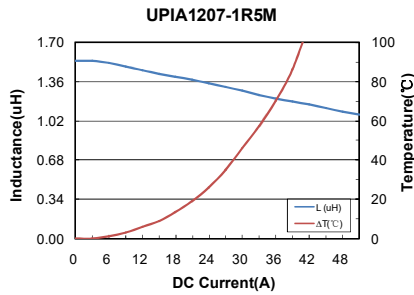
● **UPIA1207 series**

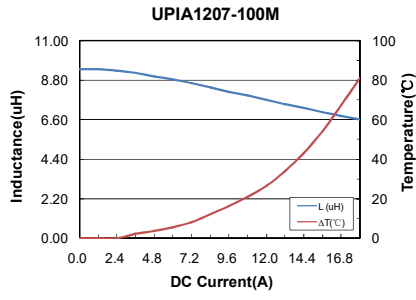
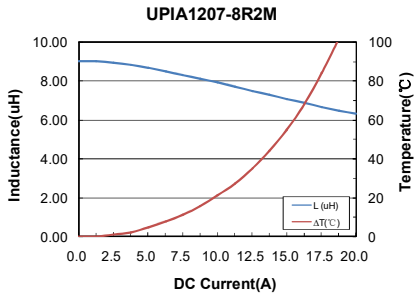
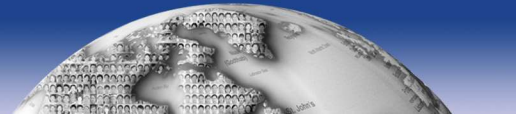
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|--|------------|---------|------------------------|------------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIA1207-R33M | 0.33 | 0.8 | 0.9 | 65.0 | 46.0 | 3.0 |
| UPIA1207-R47M | 0.47 | 1.0 | 1.2 | 63.0 | 41.0 | 3.0 |
| UPIA1207-R56M | 0.56 | 1.2 | 1.4 | 62.0 | 37.0 | 3.0 |
| UPIA1207-R68M | 0.68 | 1.45 | 1.6 | 60.0 | 35.0 | 3.0 |
| UPIA1207-R82M | 0.82 | 1.75 | 1.9 | 50.0 | 33.0 | 3.0 |
| UPIA1207-1R0M | 1.0 | 1.85 | 2.0 | 50.0 | 32.0 | 3.0 |
| UPIA1207-1R5M | 1.5 | 2.6 | 3.0 | 45.0 | 27.0 | 3.0 |
| UPIA1207-2R2M | 2.2 | 3.7 | 4.2 | 40.0 | 22.0 | 3.0 |
| UPIA1207-3R3M | 3.3 | 6.2 | 6.8 | 35.0 | 18.0 | 3.0 |
| UPIA1207-4R7M | 4.7 | 7.4 | 10.0 | 30.0 | 15.0 | 3.0 |
| UPIA1207-5R6M | 5.6 | 9.7 | 11.2 | 26.5 | 13.5 | 3.0 |
| UPIA1207-6R8M | 6.8 | 7.4 | 14.0 | 17.0 | 12.0 | 3.0 |
| UPIA1207-8R2M | 8.2 | 13.4 | 15.5 | 16.0 | 10.5 | 3.0 |
| UPIA1207-100M | 10.0 | 13.2 | 16.8 | 15.5 | 10.0 | 3.0 |

Typical performance curves :



Typical performance curves :





* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

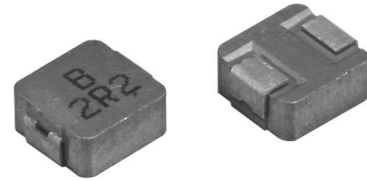


UPI B SERIES

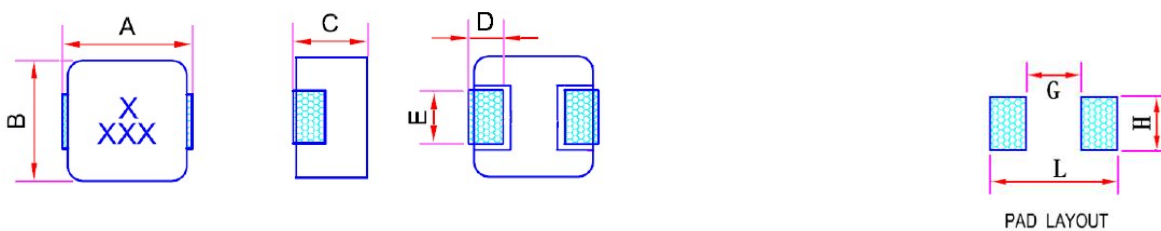
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

Applications :

- . PDA/Notebook/Desktop, and server applications.
- . DC/DC converters in distributed power systems.
- . DC/DC converter for Field Programmable Gate Array(FPGA).



Shape and Dimensions (Dimensions are in mm):



| Item | A Max. | B Max. | C Max. | D | E | G | H | L |
|-----------|--------|--------|--------|---------|---------|-----|-----|-----|
| UPIBS0603 | 7.25 | 6.72 | 3.0 | 1.6±0.3 | By each | 3.7 | 3.5 | 8.0 |

Features :

- . Low profile and low DCR.
- . Shielded construction.
- . handles high transient current spikes without saturation
- . **B** type frequency up to **5MHz**.
- . Ultra low buzz noise, due to composite construction.
- . RoHS compliant.

Characteristics:

- . Saturation Current (Isat) : The current causes L_0 dropped approximately 30% typically.
- . Temperature Rise Current(Irms) : The current causes the coil temperature rised approximately $\Delta T=40^\circ\text{C}$ without core Loss.
- . Operating Temperature : -55°C to 125°C .

Product Identification :

UPI B S 0603 - 2R2 M

(1) (2) (3) (4) (5)

- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style : **B**-Powder Type **S**-Small Size.
- (3) Dimensions : **0603** is size.
- (4) Inductance: **2R2** for **2.2** uH.
- (5) Inductance tolerance: **M**: $\pm 20\%$.

Test equipments :

- . L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- . DCR tested by Milli-ohm meter.
- . Electrical specifications at 25°C .

Handling and precautions :

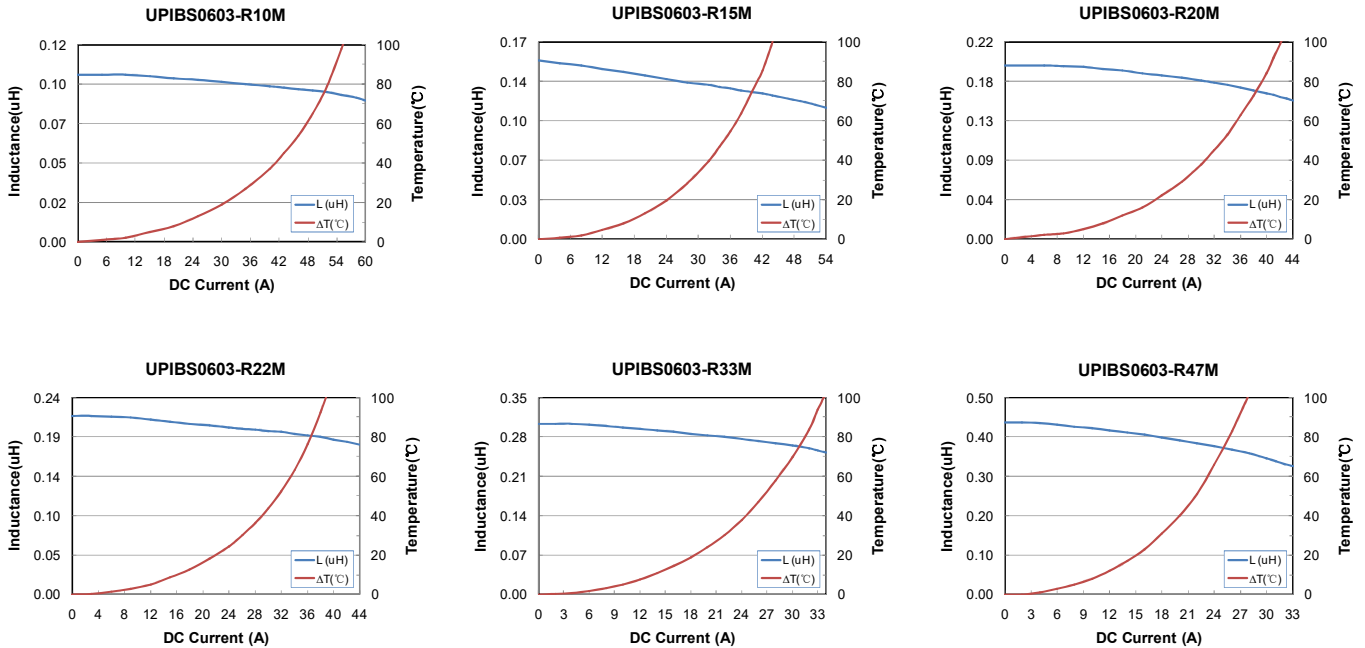
- . Please contact us before cleaning this product.

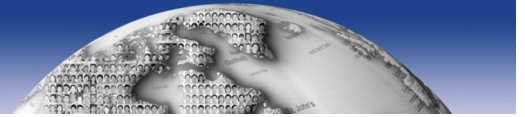


● **UPIBS0603 series**

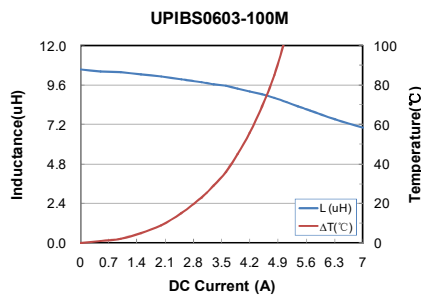
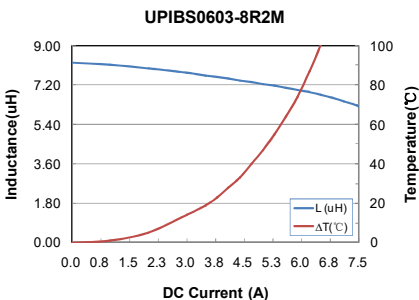
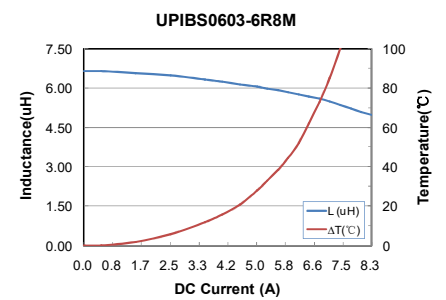
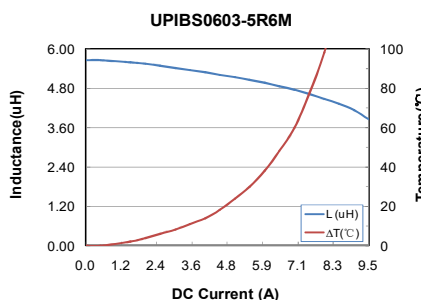
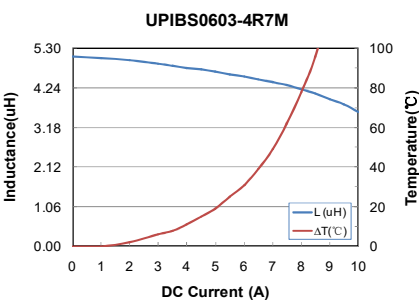
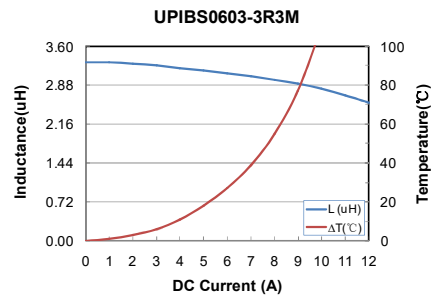
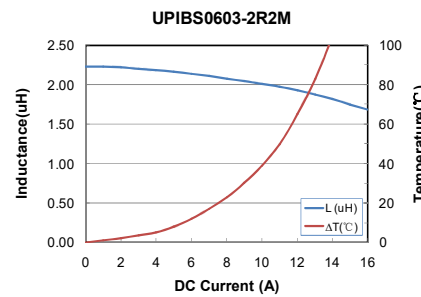
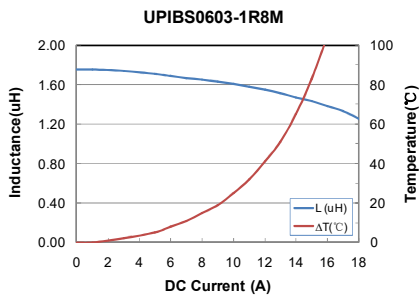
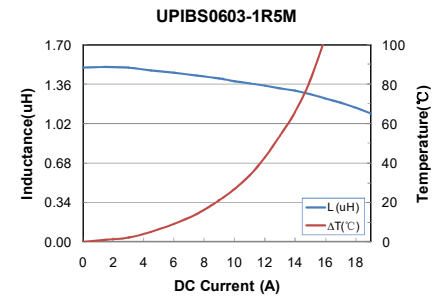
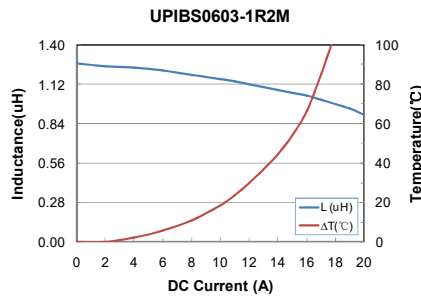
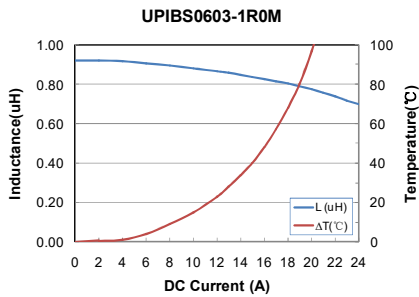
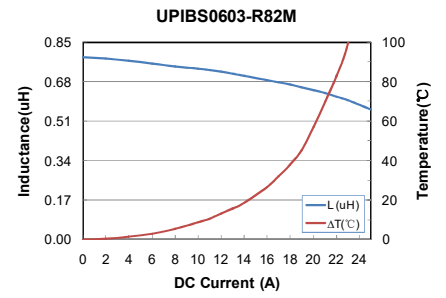
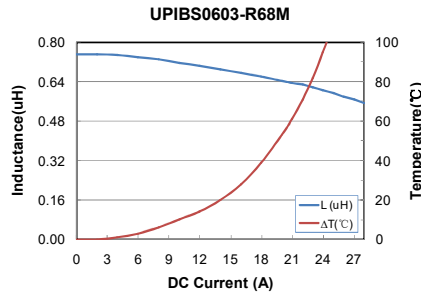
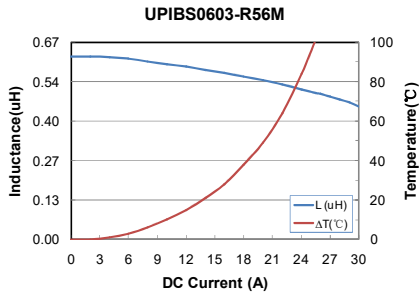
| Part No. | Inductance @100kHz L_0 (μH) | DCR ($\text{m}\Omega$) | | I sat (A) Typ. | I rms (A) Typ. | E mm ± 0.5 |
|----------------|--|--------------------------|---------|----------------------|----------------------|----------------------|
| | | Typical | Maximum | | | |
| UPIBS0603-R10M | 0.10 | 1.15 | 1.7 | 60.0 | 32.5 | 2.0 |
| UPIBS0603-R15M | 0.15 | 1.35 | 2.5 | 52.0 | 26.0 | 2.0 |
| UPIBS0603-R20M | 0.20 | 2.45 | 3.0 | 41.0 | 24.0 | 3.0 |
| UPIBS0603-R22M | 0.22 | 2.45 | 2.8 | 40.0 | 23.0 | 3.0 |
| UPIBS0603-R33M | 0.33 | 3.1 | 3.9 | 30.0 | 20.0 | 3.0 |
| UPIBS0603-R47M | 0.47 | 4.0 | 4.2 | 26.0 | 17.5 | 3.0 |
| UPIBS0603-R56M | 0.56 | 4.8 | 5.0 | 25.5 | 16.5 | 3.0 |
| UPIBS0603-R68M | 0.68 | 4.95 | 5.5 | 25.0 | 15.5 | 3.0 |
| UPIBS0603-R82M | 0.82 | 7.15 | 8.0 | 24.0 | 13.0 | 3.0 |
| UPIBS0603-1R0M | 1.0 | 9.3 | 10.0 | 22.0 | 11.0 | 3.0 |
| UPIBS0603-1R2M | 1.2 | 11.6 | 13.0 | 20.0 | 10.0 | 3.0 |
| UPIBS0603-1R5M | 1.5 | 13.5 | 15.0 | 18.0 | 9.0 | 3.0 |
| UPIBS0603-1R8M | 1.8 | 14.9 | 18.0 | 16.0 | 8.5 | 3.0 |
| UPIBS0603-2R2M | 2.2 | 18.3 | 20.0 | 14.0 | 8.0 | 3.0 |
| UPIBS0603-3R3M | 3.3 | 28.0 | 30.0 | 13.5 | 6.0 | 3.0 |
| UPIBS0603-4R7M | 4.7 | 38.0 | 40.0 | 10.0 | 5.5 | 3.0 |
| UPIBS0603-5R6M | 5.6 | 46.9 | 50.0 | 9.0 | 5.0 | 3.0 |
| UPIBS0603-6R8M | 6.8 | 54.8 | 60.0 | 8.0 | 4.5 | 3.0 |
| UPIBS0603-8R2M | 8.2 | 61.5 | 68.0 | 7.5 | 4.0 | 3.0 |
| UPIBS0603-100M | 10.0 | 102.5 | 105.0 | 7.0 | 3.0 | 3.0 |

Typical performance curves :

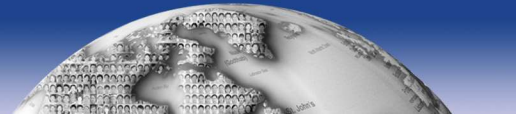




Typical performance curves :



* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

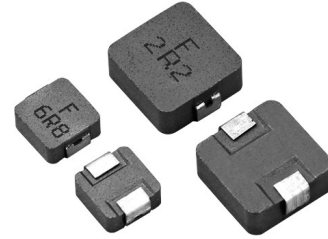


UPI F SERIES

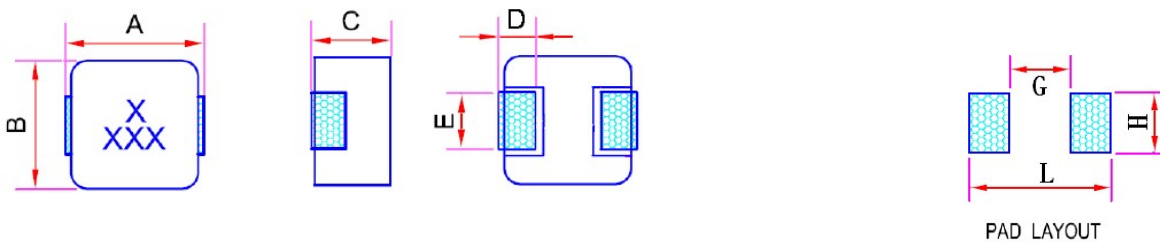
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

Applications:

- . PDA/Notebook/Desktop, and server applications.
- . DC/DC converters in distributed power systems.
- . DC/DC converter for Field Programmable Gate Array(FPGA).



Shape and Dimensions(Dimensions are in mm) :



| Item | A Max. | B Max. | C Max. | D | E | G | H | L |
|-----------|--------|--------|--------|---------|---------|-----|-----|------|
| UPIFS0603 | 7.25 | 6.72 | 3.0 | 1.6±0.3 | By each | 3.7 | 3.5 | 8.0 |
| UPIF0804 | 8.90 | 8.25 | 4.0 | 1.8±0.3 | By each | 4.6 | 3.8 | 10.6 |
| UPIF1004 | 11.8 | 10.5 | 4.0 | 2.3±0.3 | 3.0±0.5 | 5.4 | 4.5 | 12.4 |

Features :

- . Low profile and low DCR.
- . Shielded construction.
- . handles high transient current spikes without saturation
- . **F** type frequency up to **3MHz**.
- . Ultra low buzz noise, due to composite construction.
- . RoHS compliant.

Characteristics:

- . Saturation Current (Isat) : The current causes L_0 dropped approximately 30% typically.
- . Temperature Rise Current(Irms) : The current causes the coil temperature rised approximately $\Delta T=40^\circ\text{C}$ without core Loss.
- . Operating Temperature : -55°C to 125°C .

Product Identification:

UPI F S 0603 - 2R2 M

(1) (2) (3) (4) (5)

(1) Series : Ultra High Current SMT Power Inductors.

(2) Style : **F**-Powder Type **S**- small Size.

(3) Dimensions : **0603** is size.

(4) Inductance: **2R2** for **2.2** uH.

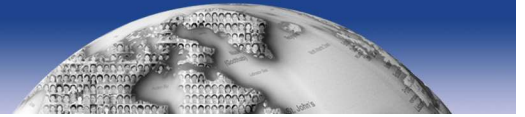
(5) Inductance tolerance: **M**: $\pm 20\%$.

Test equipments:

- . L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- . DCR tested by Milli-ohm meter.
- . Electrical specifications at 25°C .

Handling and precautions:

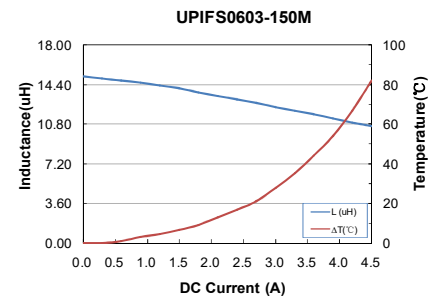
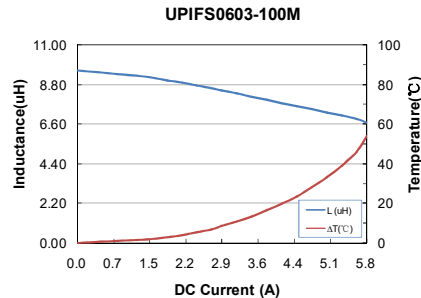
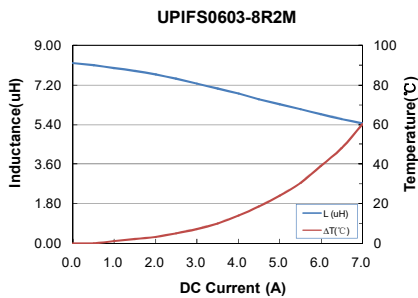
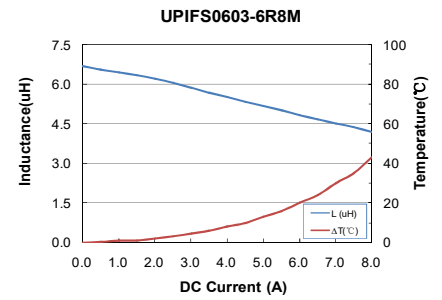
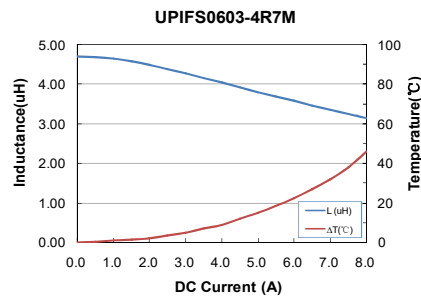
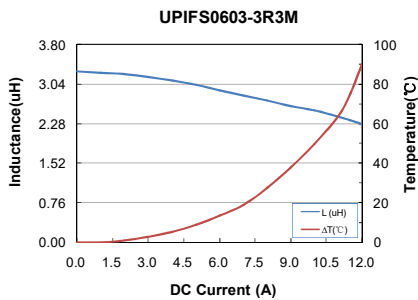
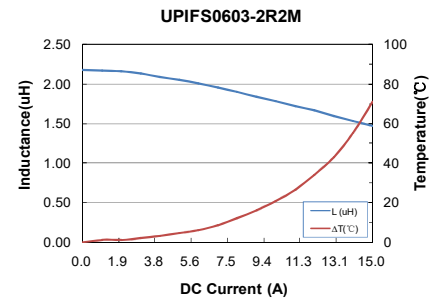
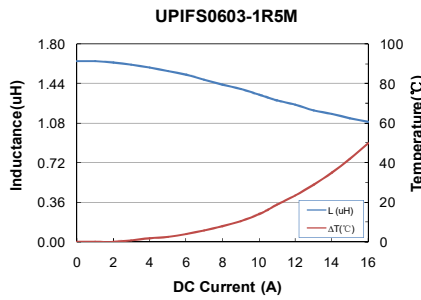
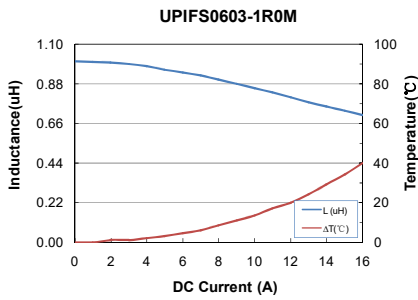
- . Please contact us before cleaning this product.

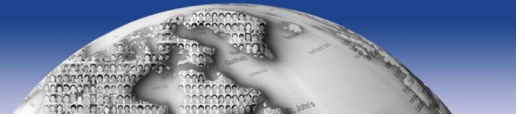


● UPIFS0603 series

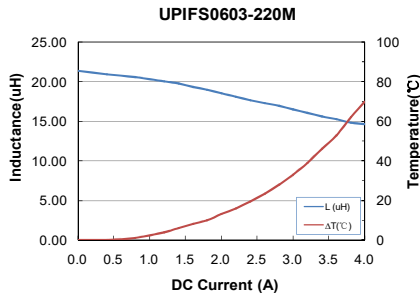
| Part No. | Inductance @100kHz L_0 (uH) | DCR (m Ω) | | I sat (A) Typ. | I rms (A) Typ. | E mm ± 0.5 |
|----------------|---------------------------------------|--------------------|---------|----------------------|----------------------|----------------------|
| | | Typical | Maximum | | | |
| UPIFS0603-1R0M | 1.0 | 7.0 | 8.0 | 9.5 | 12.5 | 3.0 |
| UPIFS0603-1R5M | 1.5 | 10.2 | 12.0 | 8.5 | 10.5 | 3.0 |
| UPIFS0603-2R2M | 2.2 | 14.7 | 16.5 | 7.0 | 9.0 | 3.0 |
| UPIFS0603-3R3M | 3.3 | 23.5 | 26.0 | 6.5 | 7.0 | 3.0 |
| UPIFS0603-4R7M | 4.7 | 29.5 | 33.4 | 4.0 | 6.0 | 3.0 |
| UPIFS0603-6R8M | 6.8 | 41.0 | 46.8 | 4.0 | 5.5 | 3.0 |
| UPIFS0603-8R2M | 8.2 | 52.5 | 54.9 | 4.0 | 5.0 | 3.0 |
| UPIFS0603-100M | 10.0 | 64.5 | 71.2 | 3.5 | 4.0 | 3.0 |
| UPIFS0603-150M | 15.0 | 108.0 | 118.0 | 4.0 | 3.0 | 3.0 |
| UPIFS0603-220M | 22.0 | 126.0 | 135.0 | 2.5 | 2.9 | 3.0 |

Typical performance curves :





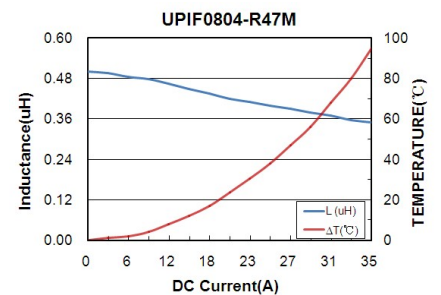
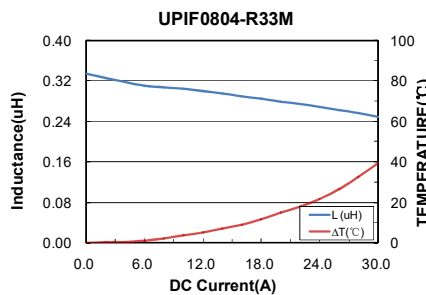
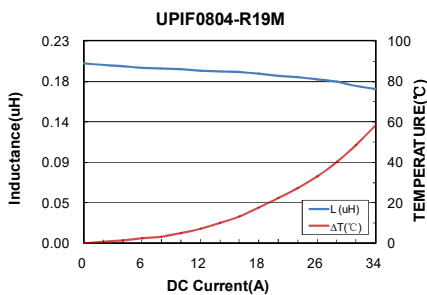
Typical performance curves :



● **UPIF0804 series**

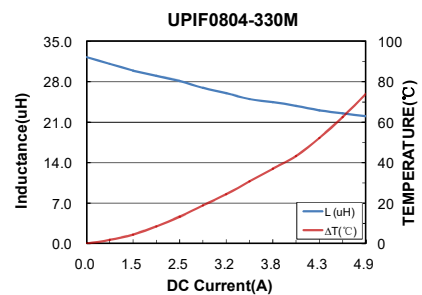
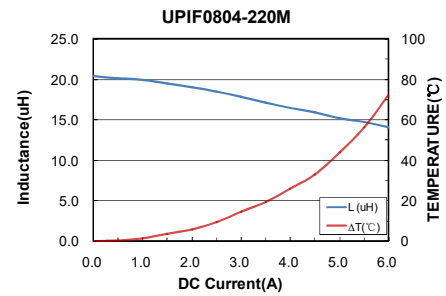
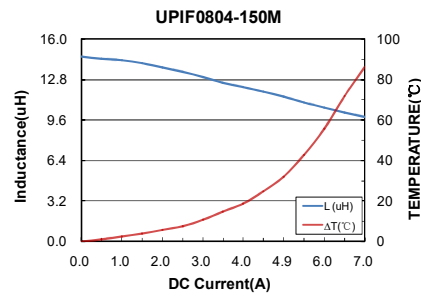
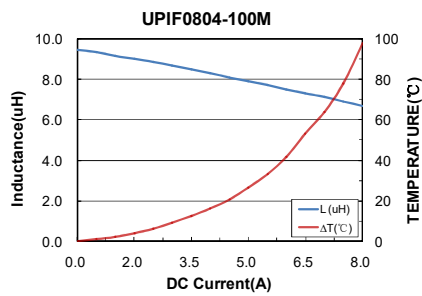
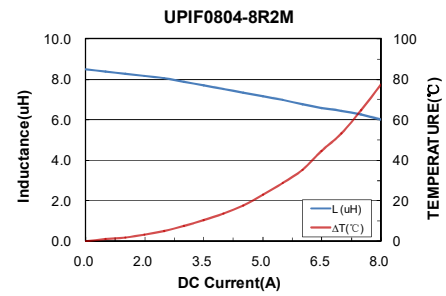
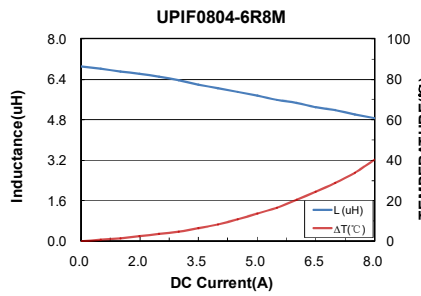
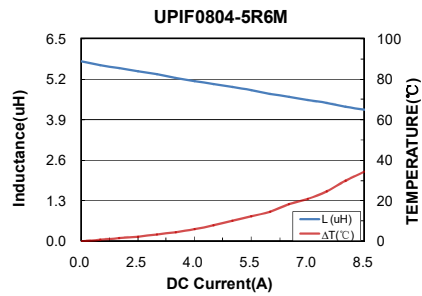
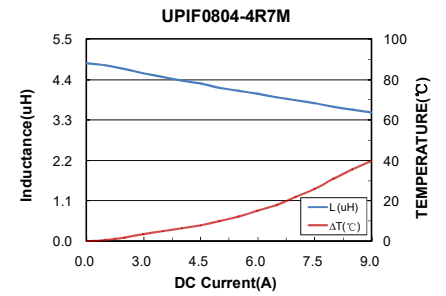
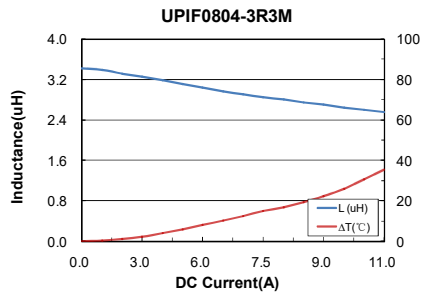
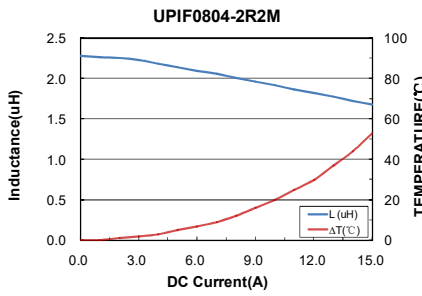
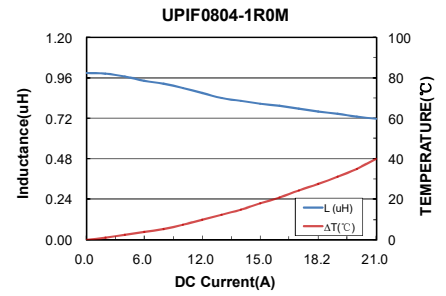
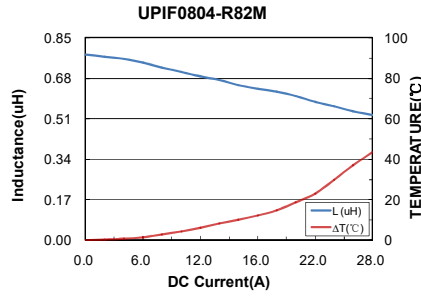
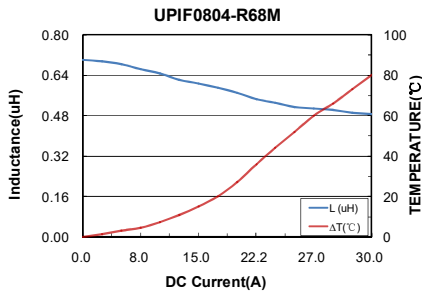
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|--|------------|---------|----------------|----------------|-----------|
| | | Typical | Maximum | | | |
| UPIF0804-R19M | 0.19 | 1.18 | 1.35 | 22.0 | 34.0 | 3.0 |
| UPIF0804-R33M | 0.33 | 1.60 | 2.15 | 16.0 | 27.5 | 3.0 |
| UPIF0804-R47M | 0.47 | 2.22 | 2.38 | 14.0 | 25.0 | 3.0 |
| UPIF0804-R68M | 0.68 | 2.90 | 3.22 | 14.5 | 22.2 | 3.0 |
| UPIF0804-R82M | 0.82 | 2.81 | 3.88 | 15.0 | 19.5 | 3.0 |
| UPIF0804-1R0M | 1.0 | 4.03 | 4.63 | 12.0 | 18.2 | 3.2 |
| UPIF0804-2R2M | 2.2 | 8.8 | 9.41 | 10.2 | 14.5 | 3.2 |
| UPIF0804-3R3M | 3.3 | 12.45 | 14.9 | 9.7 | 10.5 | 3.2 |
| UPIF0804-4R7M | 4.7 | 19.8 | 22.6 | 8.7 | 8.0 | 3.2 |
| UPIF0804-5R6M | 5.6 | 24.53 | 28.6 | 7.6 | 7.4 | 3.2 |
| UPIF0804-6R8M | 6.8 | 28.34 | 33.4 | 6.7 | 7.0 | 3.2 |
| UPIF0804-8R2M | 8.2 | 39.64 | 45 | 6.6 | 5.7 | 3.2 |
| UPIF0804-100M | 10 | 44.15 | 51.8 | 6.4 | 5.4 | 3.2 |
| UPIF0804-150M | 15 | 53.50 | 65.3 | 3.7 | 4.9 | 3.2 |
| UPIF0804-220M | 22 | 70.47 | 94.2 | 3.3 | 4.3 | 3.2 |
| UPIF0804-330M | 33 | 114.78 | 144 | 3.2 | 3.2 | 3.2 |

Typical performance curves :





Typical performance curves :

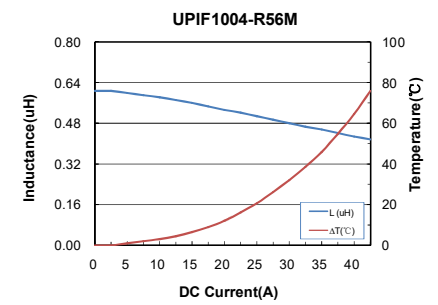
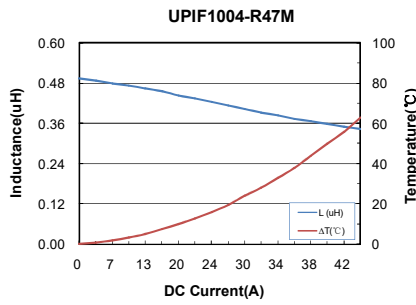
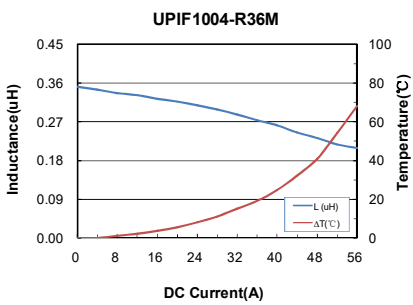
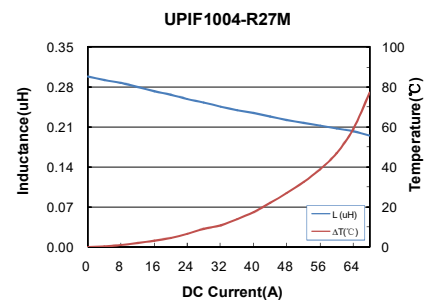
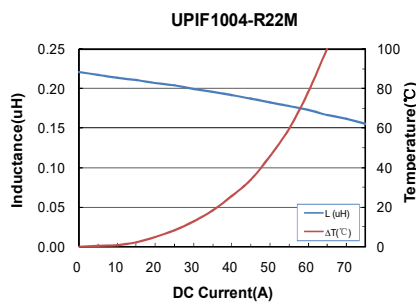
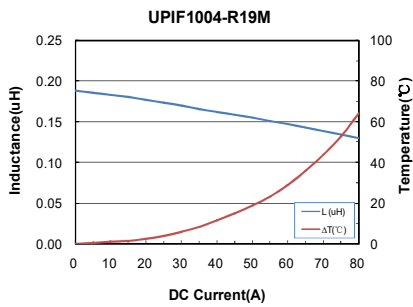




● **UPIF1004 series**

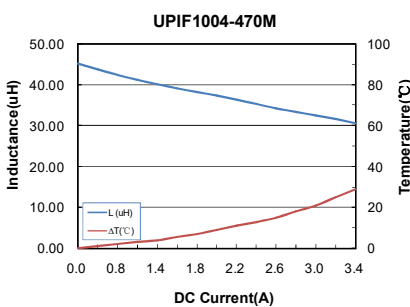
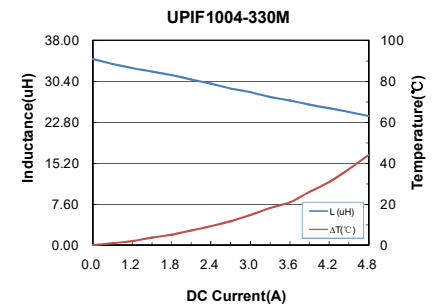
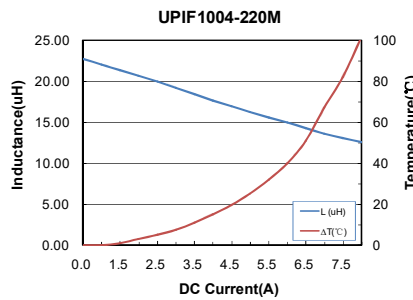
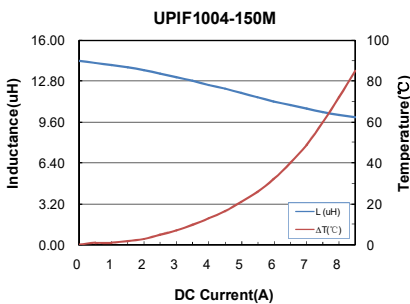
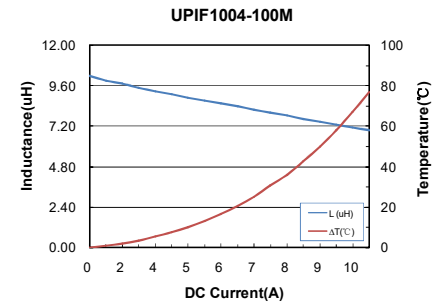
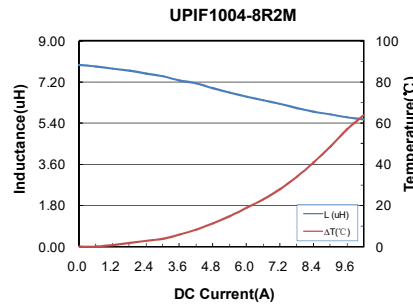
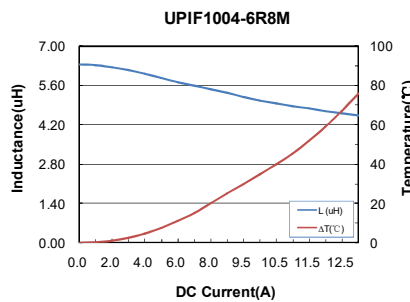
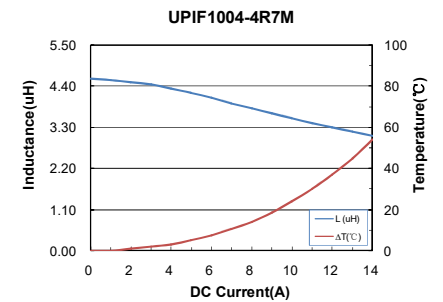
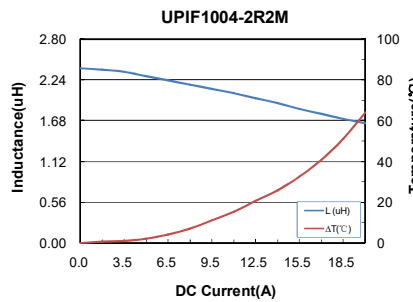
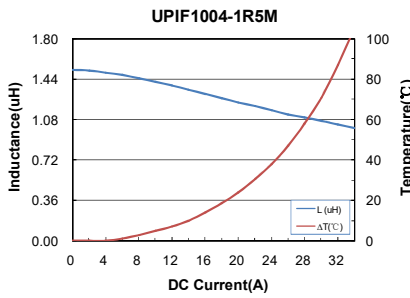
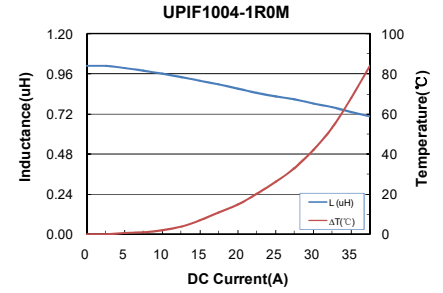
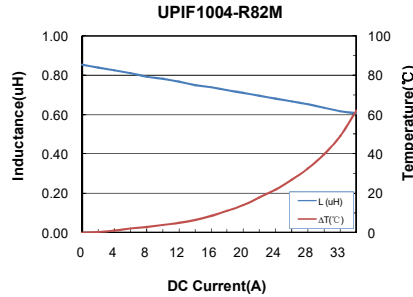
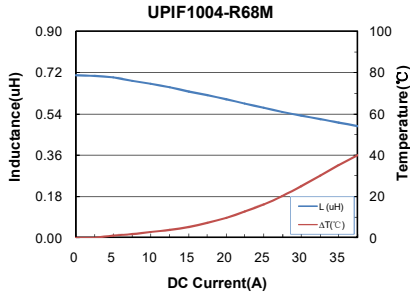
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|---------------|--|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIF1004-R19M | 0.19 | 0.6 | 0.8 | 46.0 | 40.0 | 3.0 |
| UPIF1004-R22M | 0.22 | 0.8 | 0.95 | 44.0 | 33.0 | 3.0 |
| UPIF1004-R27M | 0.27 | 0.8 | 0.95 | 44.0 | 33.0 | 3.0 |
| UPIF1004-R36M | 0.36 | 1.0 | 1.15 | 30.0 | 32.0 | 3.0 |
| UPIF1004-R47M | 0.47 | 1.4 | 1.68 | 30.0 | 30.0 | 3.0 |
| UPIF1004-R56M | 0.56 | 1.7 | 1.8 | 22.0 | 32.0 | 3.0 |
| UPIF1004-R68M | 0.68 | 1.7 | 1.85 | 22.0 | 27.0 | 3.0 |
| UPIF1004-R82M | 0.82 | 2.2 | 2.3 | 22.0 | 25.0 | 3.0 |
| UPIF1004-1R0M | 1.0 | 2.5 | 3.3 | 20.0 | 25.0 | 3.0 |
| UPIF1004-1R5M | 1.5 | 3.5 | 4.3 | 16.0 | 17.0 | 3.0 |
| UPIF1004-2R2M | 2.2 | 7.8 | 8.5 | 12.0 | 15.0 | 3.0 |
| UPIF1004-4R7M | 4.7 | 13.8 | 14.2 | 7.6 | 9.5 | 3.0 |
| UPIF1004-6R8M | 6.8 | 18.7 | 19.3 | 7.5 | 9.0 | 3.0 |
| UPIF1004-8R2M | 8.2 | 25.5 | 28.0 | 7.3 | 8.0 | 3.0 |
| UPIF1004-100M | 10.0 | 28.3 | 30.5 | 7.1 | 7.5 | 3.0 |
| UPIF1004-150M | 15.0 | 38.3 | 45.0 | 6.0 | 6.25 | 3.0 |
| UPIF1004-220M | 22.0 | 61.3 | 66.0 | 4.5 | 5.0 | 3.0 |
| UPIF1004-330M | 33.0 | 89.0 | 94.5 | 4.0 | 4.4 | 3.0 |
| UPIF1004-470M | 47.0 | 129.1 | 145.0 | 3.0 | 3.3 | 3.0 |

Typical performance curves :





Typical performance curves :



* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

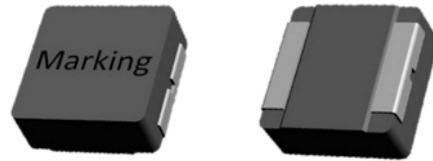


UPIF17 SERIES

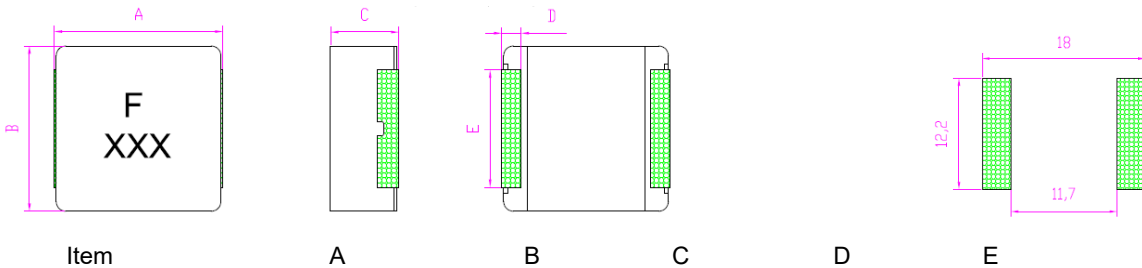
ULTRA HIGH CURRENT SMT POWER INDUCTOR

Applications:

- . PDA/ Notebook/ Desktop, and server applications.
- . DC/ DC converters in distributed power systems
- . DC/ DC converter for Field Programmable Gate Array (FPGA)



Shape and Dimensions



| Item | A | B | C | D | E |
|----------|----------|----------|---------|---------|----------|
| UPIF1707 | 17.3±0.5 | 17.0±0.3 | 6.7±0.3 | 2.1±0.3 | 12.0±0.3 |

Features :

- . Low profile and low DCR
- . Shielded construction.
- . handles high transient current spikes without saturation
- . **F** type frequency up to **3MHz**.
- . Ultra low buzz noise, due to composite construction.
- . RoHS compliant.

Characteristics:

- . Saturation Current (I_{sat}) : The current will cause L_0 to drop approximately 30% typical
- . Temperature Rise (I_{rms}) : The current will cause the coil Temperature rise approximately $\Delta T=40^\circ C$
- . Operating Temperature : $-55^\circ C$ to $125^\circ C$

Product Identification:

UPI F 1707 - 2R2 M

(1) (2) (3) (4) (5)

- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style : F-Power Type
- (3) Dimensions: **1707** is size.
- (4) Inductance: **2R2** for **2.2** uH.
- (5) Inductance tolerance: **M**: $\pm 20\%$

Test equipments:

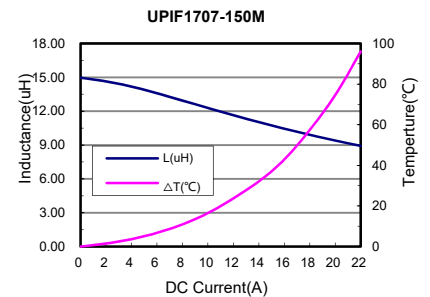
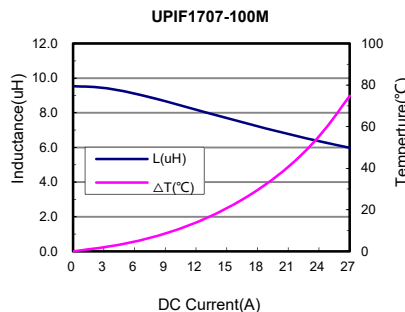
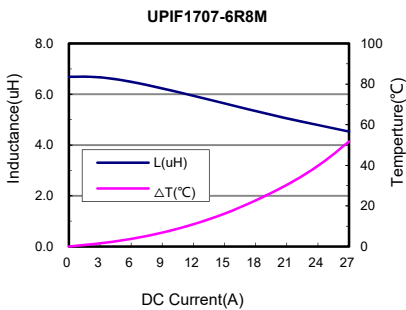
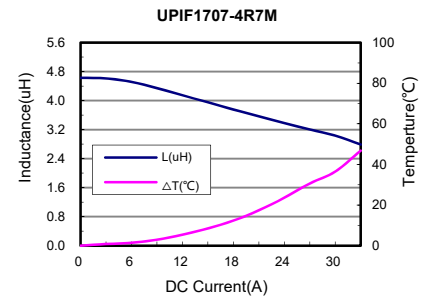
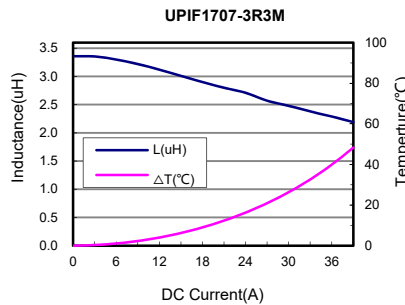
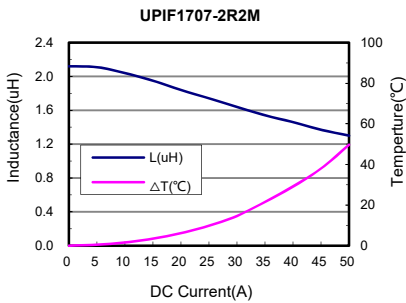
- . L : Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- . DCR: Chroma 16502 Milliohm Meter
- . IWT test: CHROMA 19301(A). (Impulse winding test)
- . Electrical specifications at $25^\circ C$.

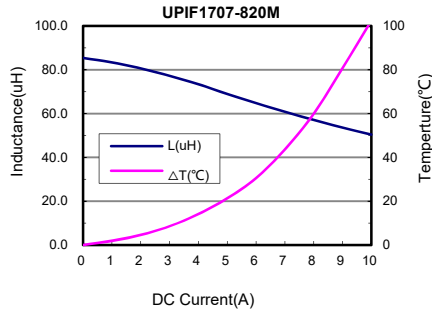
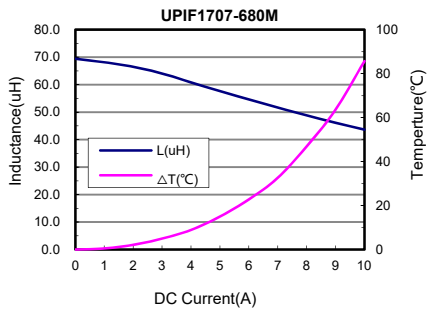
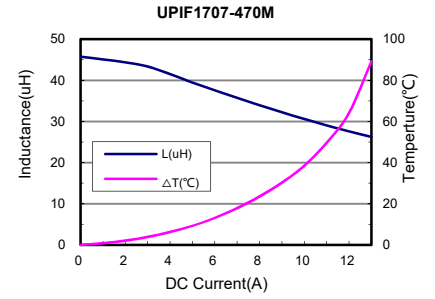
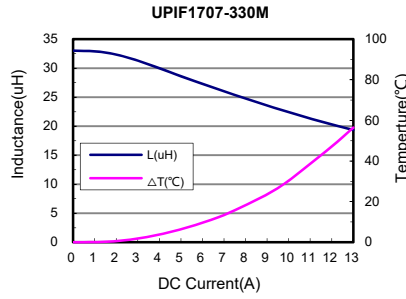
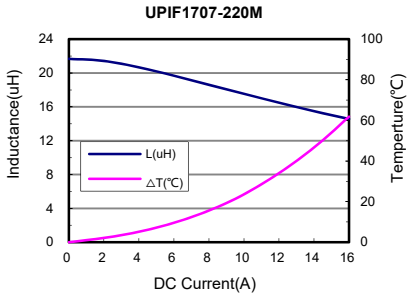


● **UPIF 1707 Serie**

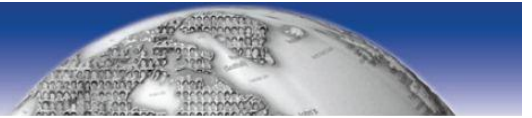
| Part No. | Inductance L (uH) | Tolerance (±%) | DCR (m Ω) | | Isat (A) Typ | Irms (A) Typ |
|---------------|------------------------|-------------------|-------------|---------|--------------------|--------------------|
| | | | Typical | Maximum | | |
| UPIF1707-2R2M | 2.2 | 20 | 1.78 | 1.98 | 31 | 43.5 |
| UPIF1707-3R3M | 3.3 | 20 | 2.65 | 2.93 | 27 | 35 |
| UPIF1707-4R7M | 4.7 | 20 | 4.0 | 4.5 | 23 | 30 |
| UPIF1707-6R8M | 6.8 | 20 | 5.56 | 6.15 | 21 | 22.5 |
| UPIF1707-100M | 10.0 | 20 | 7.88 | 9.33 | 17 | 19 |
| UPIF1707-150M | 15.0 | 20 | 13.8 | 14.4 | 14 | 14 |
| UPIF1707-220M | 22.0 | 20 | 19.9 | 21 | 11.5 | 12 |
| UPIF1707-330M | 33.0 | 20 | 31 | 37 | 9 | 10.7 |
| UPIF1707-470M | 47.0 | 20 | 36 | 42.7 | 8.6 | 8.7 |
| UPIF1707-680M | 68.0 | 20 | 70.22 | 75.7 | 7 | 6.1 |
| UPIF1707-820M | 82.0 | 20 | 78.04 | 91.7 | 6.2 | 5.5 |

● **Characteristics Curve**





• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

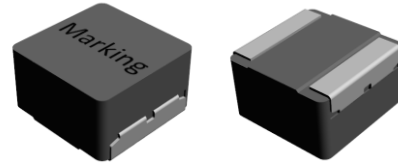


UPIF22 SERIES

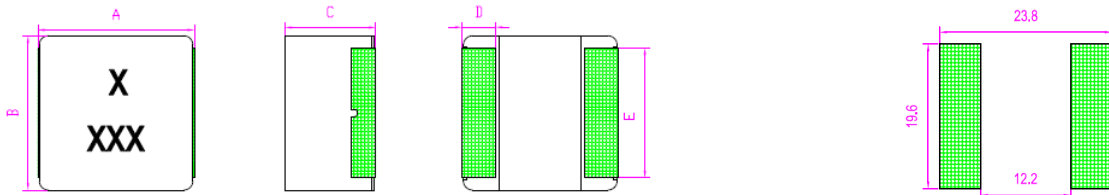
ULTRA HIGH CURRENT SMT POWER INDUCTOR

Applications:

- PDA/Notebook/Desktop, and server applications.
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array(FPGA)



Shape and Dimensions



| Item | A | B | C | D | E |
|----------|----------|----------|----------|---------|----------|
| UPIF2213 | 23.0±0.5 | 22.0±0.5 | 12.5±0.5 | 5.0±0.4 | 18.5±0.3 |

Features :

- Low profile and low DCR.
- Shielded construction.
- handles high transient current spikes without saturation
- **F** type frequency up to **3MHz**.
- Ultra low buzz noise, due to composite construction.
- RoHS compliant.

Product Identification:

UPI F 2213 - 6R8 M

(1) (2) (3) (4) (5)

- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style : F-Power Type
- (3) Dimensions : **2213** is size.
- (4) Inductance: **6R8** for **6.8** uH.
- (5) Inductance tolerance: **M**: ± 20%

Characteristics:

- Saturation Current (Isat) : The current will cause L₀ to drop approximately 30% typical
- Temperature Rise(Irms) : The current will cause the coil Temperature rise approximately ΔT=40°C without core Loss
- Operating Temperature : -55 °C to 125 °C

Test equipments:

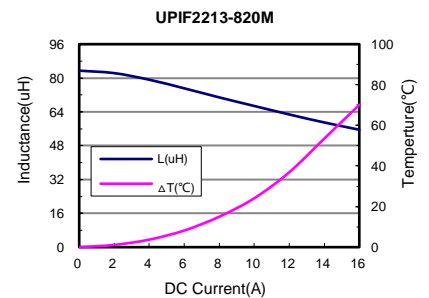
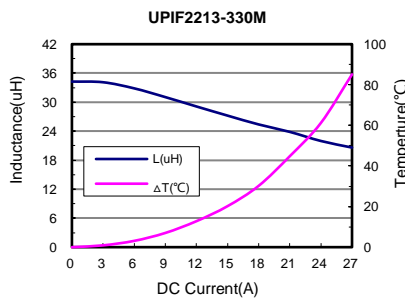
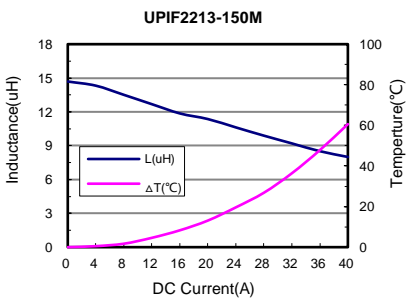
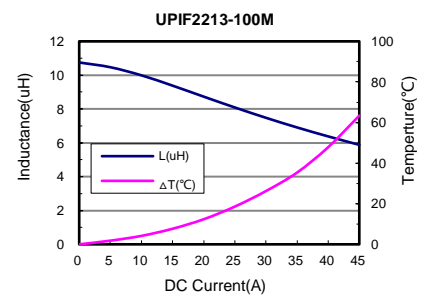
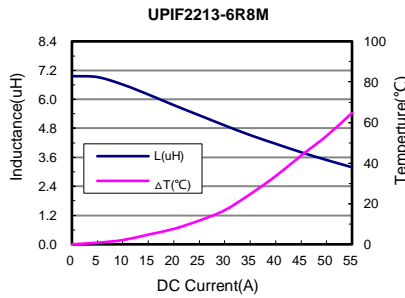
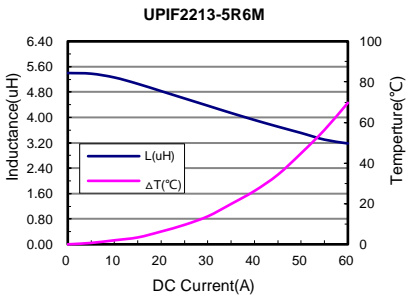
- L : Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- DCR:Chroma16502 Milliohm Meter
- IWT test: CHROMA 19301(A).(Impulse winding test)
- Electrical specifications at 25°C.



● **UPIF2213 Series**

| Part No. | Inductance @100KHZ L (uH) | Tolerance (±%) | DCR (m Ω) | | Isat (A) Typ | Irms (A) Typ |
|---------------|-----------------------------------|-------------------|-------------|---------|--------------------|--------------------|
| | | | Typical | Maximum | | |
| UPIF2213-5R6M | 5.6 | 20 | 2.06 | 2.3 | 38 | 40 |
| UPIF2213-6R8M | 6.8 | 20 | 2.52 | 3.09 | 36 | 36 |
| UPIF2213-100M | 10 | 20 | 3.57 | 4.14 | 28 | 28 |
| UPIF2213-150M | 15 | 20 | 4.89 | 6.11 | 24 | 23.5 |
| UPIF2213-330M | 33 | 20 | 13.5 | 15.4 | 17 | 15 |
| UPIF2213-820M | 82 | 20 | 35.79 | 40 | 12 | 10.2 |

● **Typical performance curves :**



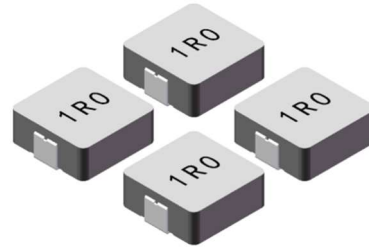


UPIF-W SERIES

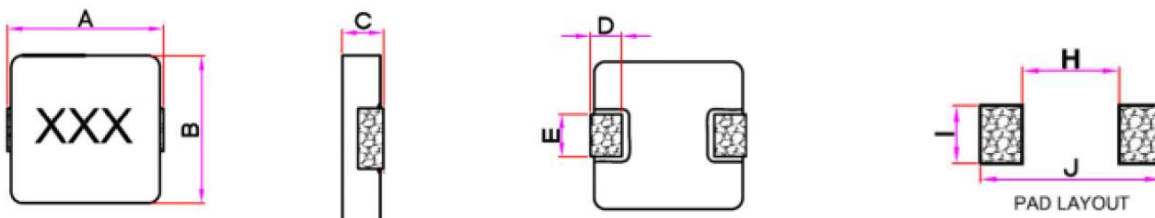
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

Applications:

- PDA/Notebook/Desktop, and server applications.
- DC/DC converters in distributed power systems.
- DC/DC converter for Field Programmable Gate Array(FPGA).



Shape and Dimensions(Dimensions are in mm) :



| Item | A | B | C | D | E | H | I | J |
|-----------|---------|----------|---------|---------|---------|-----|-----|------|
| UPIF0603W | 7.0±0.3 | 6.6±0.2 | 2.8±0.2 | 1.6±0.3 | 3.0±0.3 | 3.7 | 3.5 | 8.4 |
| UPIF1004W | 11.5MAX | 10.0±0.3 | 3.8±0.2 | 2.0±0.5 | 3.0±0.5 | 5.4 | 4.1 | 13.6 |
| UPIF1005W | 11.5MAX | 10.0±0.3 | 4.8±0.2 | 2.0±0.5 | 3.0±0.5 | 5.4 | 4.1 | 13.6 |

Features :

- Low profile and low DCR.
- Shielded construction.
- handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction.
- RoHS compliant.

Characteristics:

- Saturation Current (Isat) : The current causes L₀ dropped approximately 30% typically.
- Temperature Rise Current(Irms) : The current causes the coil temperature rised approximately ΔT=40°C without core Loss.
- Operating Temperature : -55°C to 125°C.

Product Identification:

UPI F 0603W - 2R2 M
 (1) (2) (3) (4) (5)

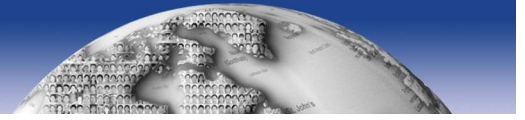
- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style: F-Powder Type
- (3) Dimensions: **0603W** is size.
- (4) Inductance: **2R2** for 2.2 uH.
- (5) Inductance tolerance: **M**: ± 20%.

Test equipments:

- L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- DCR tested by Milli-ohm meter.
- Electrical specifications at 25°C.

Handling and precautions:

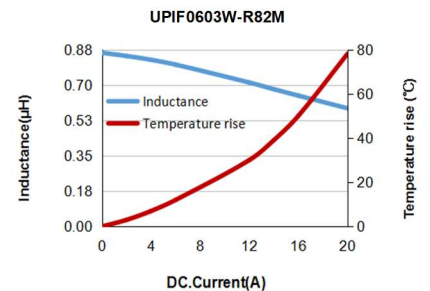
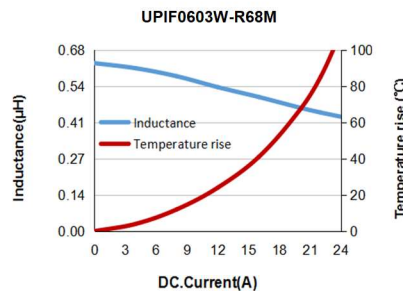
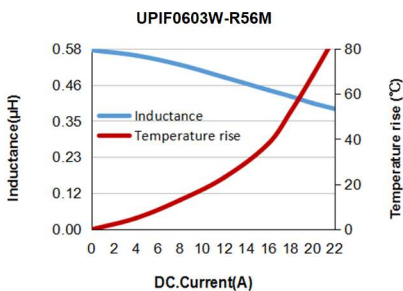
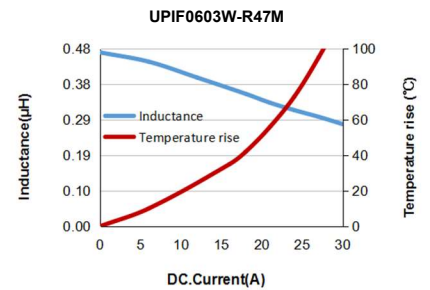
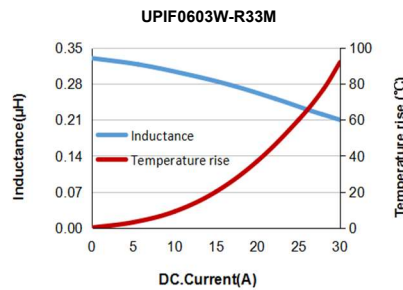
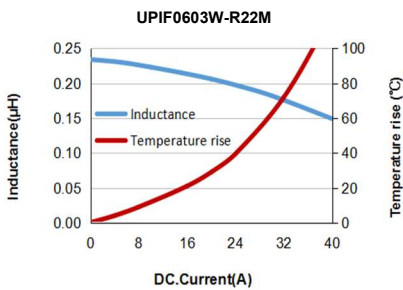
- Please contact us before cleaning this product.

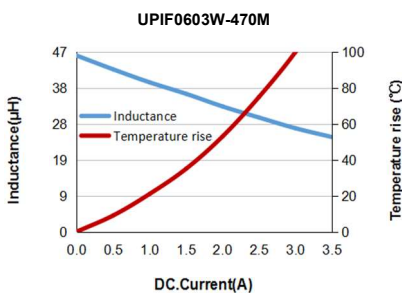
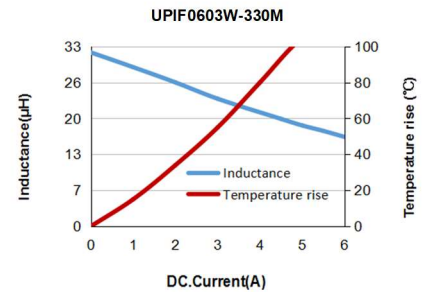
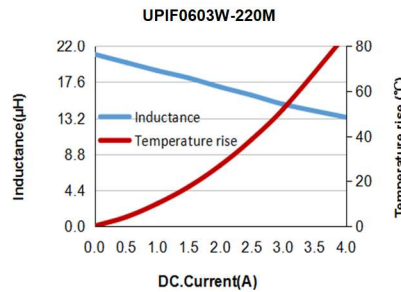
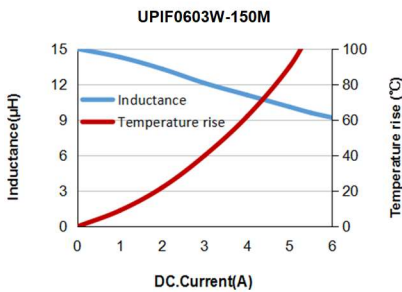
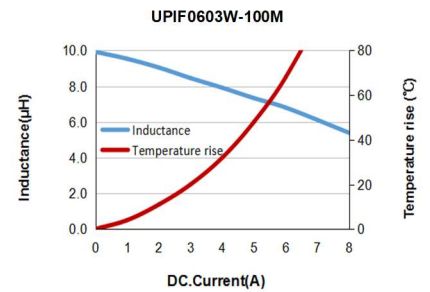
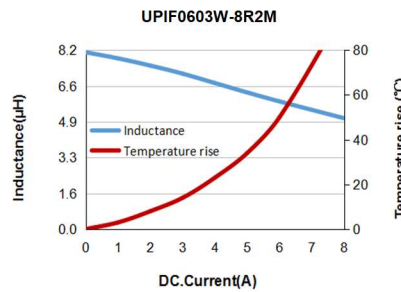
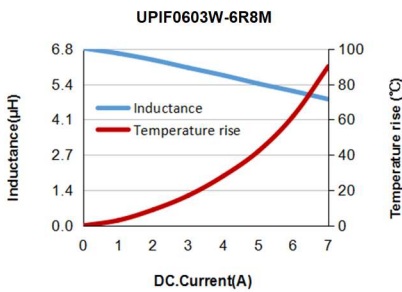
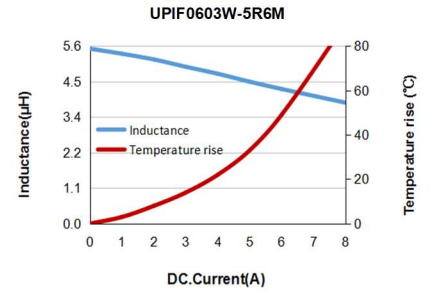
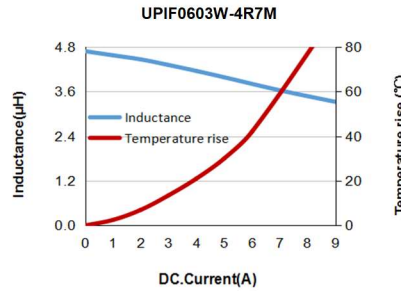
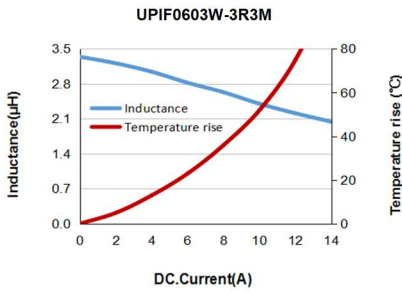
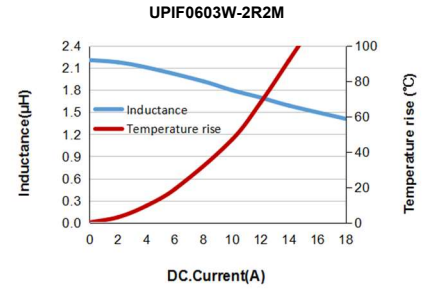
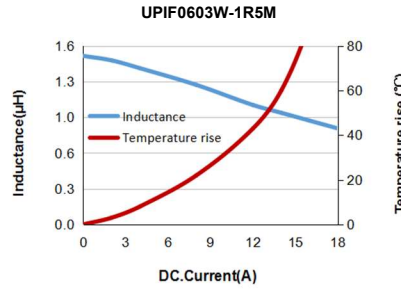
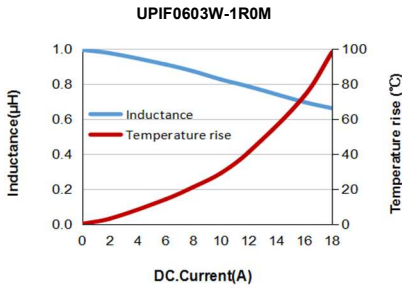
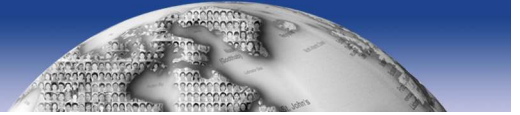


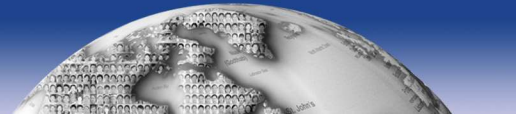
● **UPIF0603W Series**

| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | Isat (A) Typ | Irms (A) Typ | E mm ±0.5 |
|----------------|--|------------|---------|--------------------|--------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIF0603W-R22M | 0.22 | 2.5 | 3.0 | 34.0 | 24.0 | 3.0 |
| UPIF0603W-R33M | 0.33 | 3.0 | 3.5 | 25.0 | 21.0 | 3.0 |
| UPIF0603W-R47M | 0.47 | 3.5 | 4.1 | 20.0 | 18.0 | 3.0 |
| UPIF0603W-R56M | 0.56 | 3.8 | 4.5 | 18.0 | 16.5 | 3.0 |
| UPIF0603W-R68M | 0.68 | 4.5 | 5.3 | 17.0 | 16.0 | 3.0 |
| UPIF0603W-R82M | 0.82 | 5.1 | 6.0 | 16.0 | 14.0 | 3.0 |
| UPIF0603W-1R0M | 1.0 | 6.4 | 7.4 | 15.0 | 12.0 | 3.0 |
| UPIF0603W-1R5M | 1.5 | 10.1 | 12.1 | 12.0 | 12.0 | 3.0 |
| UPIF0603W-2R2M | 2.2 | 13.2 | 15.0 | 10.0 | 9.5 | 3.0 |
| UPIF0603W-3R3M | 3.3 | 19.1 | 22.0 | 9.5 | 8.5 | 3.0 |
| UPIF0603W-4R7M | 4.7 | 29.4 | 33.0 | 9.0 | 6.0 | 3.0 |
| UPIF0603W-5R6M | 5.6 | 36.8 | 42.0 | 6.5 | 5.5 | 3.0 |
| UPIF0603W-6R8M | 6.8 | 44.0 | 48.0 | 6.0 | 5.0 | 3.0 |
| UPIF0603W-8R2M | 8.2 | 56.0 | 60.0 | 5.5 | 5.0 | 3.0 |
| UPIF0603W-100M | 10 | 60.0 | 68.0 | 5.5 | 4.5 | 3.0 |
| UPIF0603W-150M | 15 | 100 | 113 | 4.0 | 3.0 | 3.0 |
| UPIF0603W-220M | 22 | 138 | 170 | 3.0 | 2.5 | 3.0 |
| UPIF0603W-330M | 33 | 183 | 270 | 2.5 | 2.0 | 3.0 |
| UPIF0603W-470M | 47 | 354 | 385 | 2.0 | 1.5 | 3.0 |

Typical performance curves :



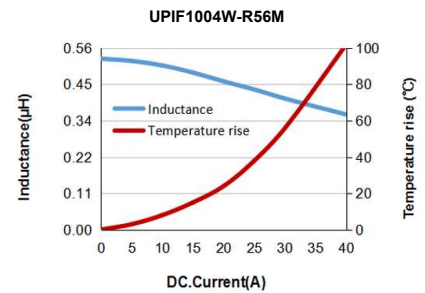
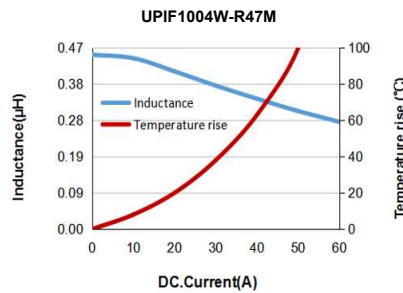
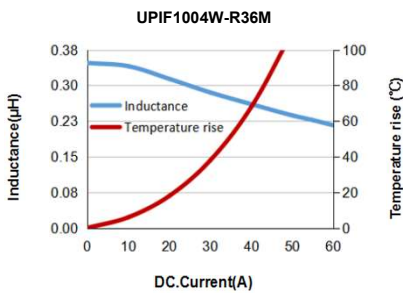
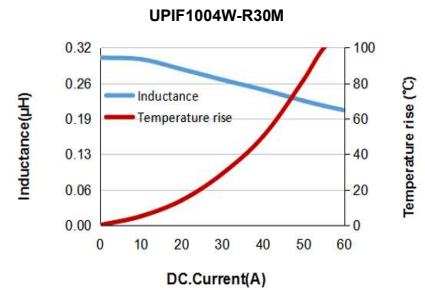
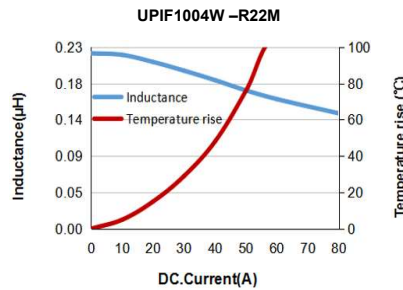
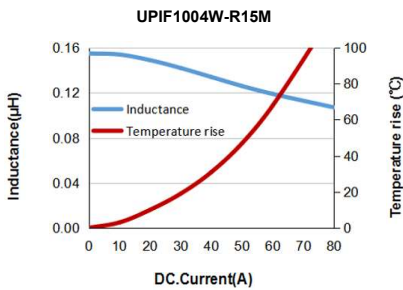




● **UPIF1004W Series**

| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|----------------|--|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIF1004W-R15M | 0.15 | 0.52 | 0.65 | 75.0 | 45.0 | 3.0 |
| UPIF1004W-R22M | 0.22 | 0.87 | 1.0 | 60.0 | 35.0 | 3.0 |
| UPIF1004W-R30M | 0.30 | 0.95 | 1.1 | 45.0 | 35.0 | 3.0 |
| UPIF1004W-R36M | 0.36 | 1.07 | 1.2 | 45.0 | 30.0 | 3.0 |
| UPIF1004W-R47M | 0.47 | 1.56 | 1.7 | 40.0 | 30.0 | 3.0 |
| UPIF1004W-R56M | 0.56 | 1.64 | 1.8 | 33.0 | 25.0 | 3.0 |
| UPIF1004W-R68M | 0.68 | 2.1 | 2.4 | 30.0 | 23.0 | 3.0 |
| UPIF1004W-R80M | 0.80 | 2.5 | 2.7 | 29.0 | 23.0 | 3.0 |
| UPIF1004W-1R0M | 1.0 | 2.9 | 3.3 | 28.0 | 19.0 | 3.0 |
| UPIF1004W-1R5M | 1.5 | 3.7 | 4.2 | 24.0 | 16.0 | 3.0 |
| UPIF1004W-2R2M | 2.2 | 5.8 | 7.0 | 16.5 | 12.0 | 3.0 |
| UPIF1004W-3R3M | 3.3 | 10.0 | 11.8 | 16.0 | 11.0 | 3.0 |
| UPIF1004W-4R7M | 4.7 | 17.3 | 20.0 | 13.0 | 9.0 | 3.0 |
| UPIF1004W-6R8M | 6.8 | 22.5 | 25.0 | 12.0 | 8.5 | 3.0 |
| UPIF1004W-8R2M | 8.2 | 24.7 | 27.0 | 9.0 | 8.0 | 3.0 |
| UPIF1004W-100M | 10 | 26.8 | 30.0 | 8.5 | 7.8 | 3.0 |
| UPIF1004W-150M | 15 | 39.0 | 45.0 | 7.0 | 6.5 | 3.0 |
| UPIF1004W-220M | 22 | 56.7 | 66.0 | 5.5 | 5.0 | 3.0 |
| UPIF1004W-330M | 33 | 78.0 | 92.0 | 4.8 | 4.4 | 3.0 |
| UPIF1004W-470M | 47 | 125 | 145 | 3.5 | 3.3 | 3.0 |
| UPIF1004W-680M | 68 | 167 | 195 | 3.0 | 2.5 | 3.0 |
| UPIF1004W-101M | 100 | 290 | 340 | 2.5 | 2.0 | 3.0 |

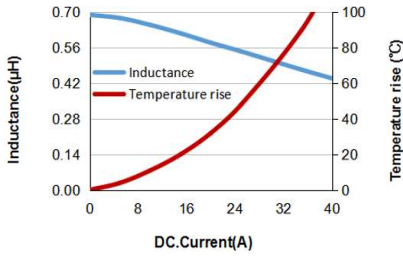
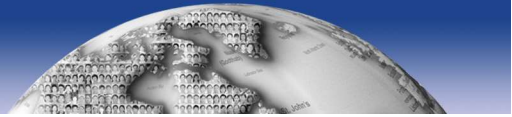
Typical performance curves :



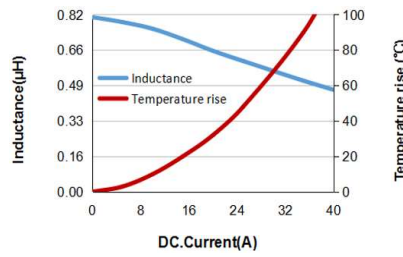
UPIF1004W-R68M

UPIF1004W-R80M

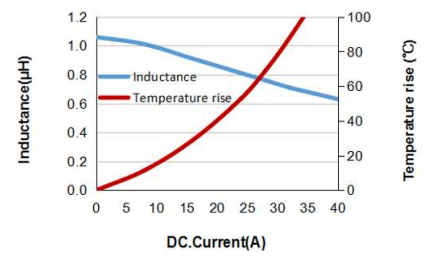
UPIF1004W-1R0M



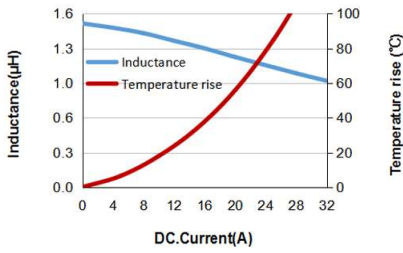
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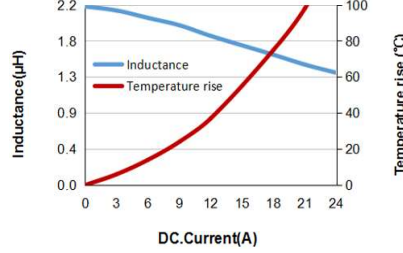
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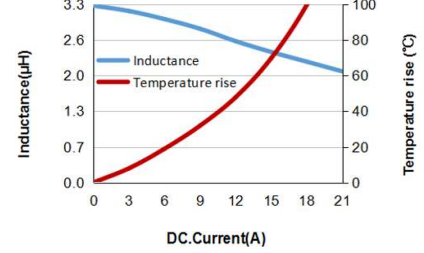
UPIF1004W-3R3M



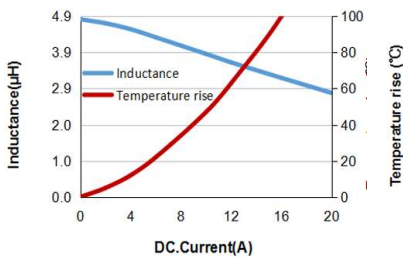
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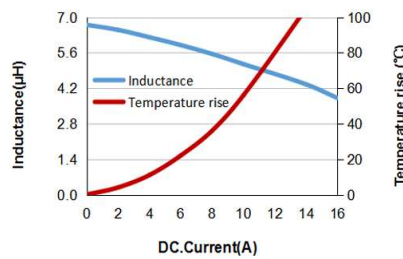
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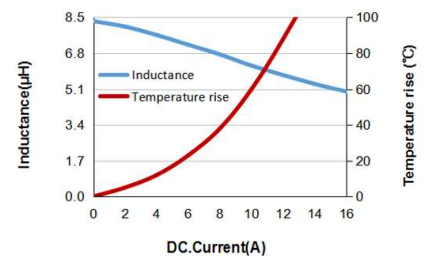
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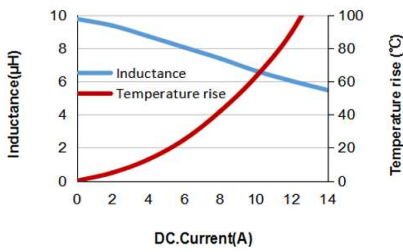
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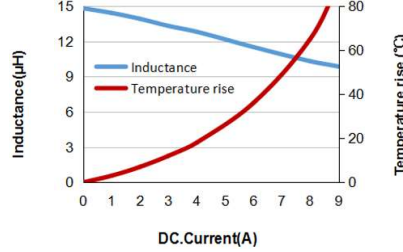
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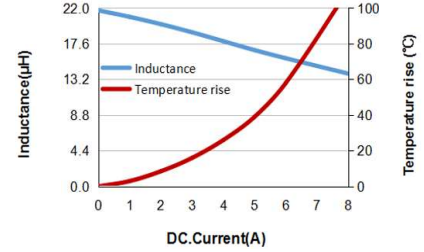
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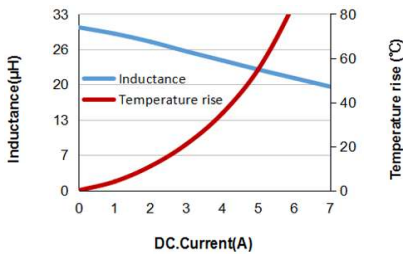
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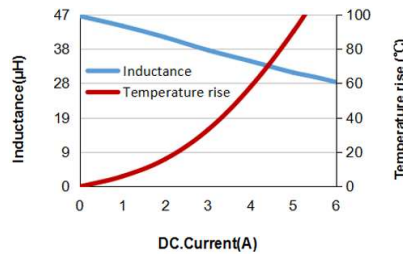
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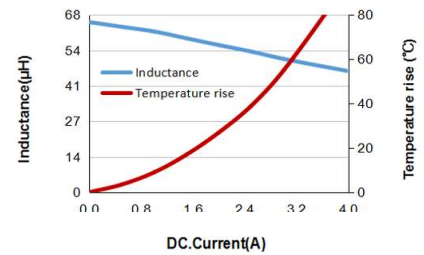
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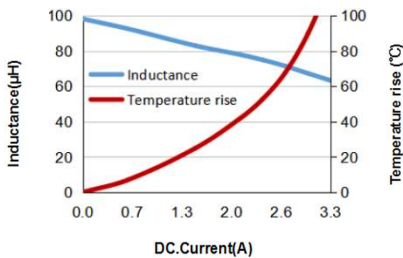
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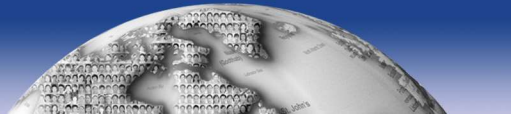
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UPIF1004W-2200M



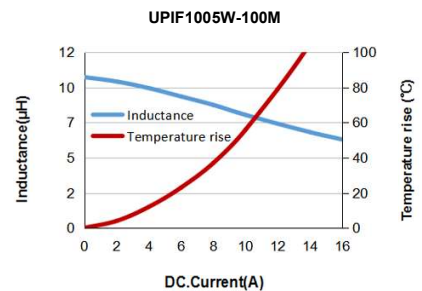
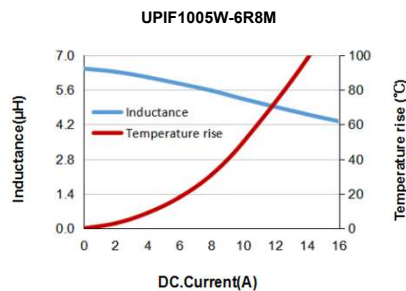
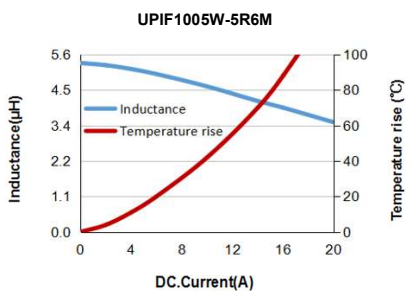
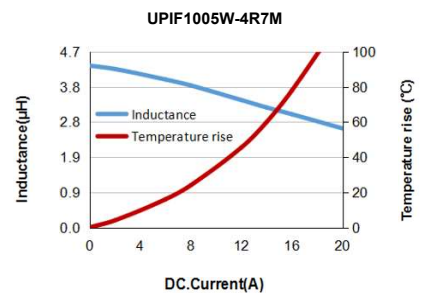
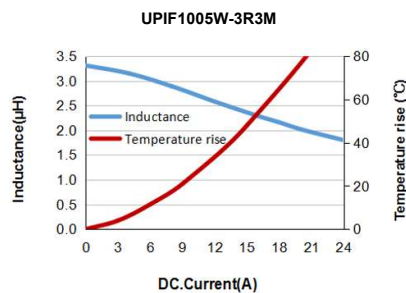
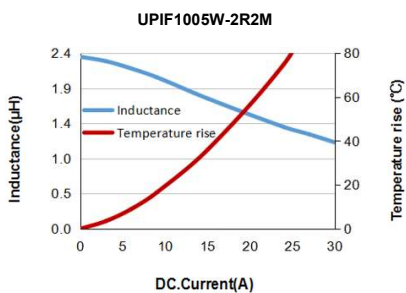
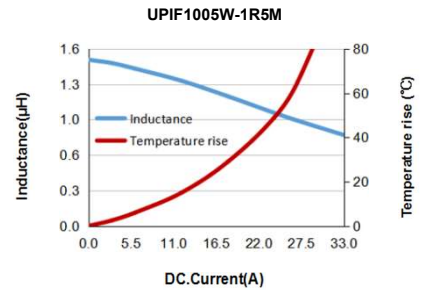
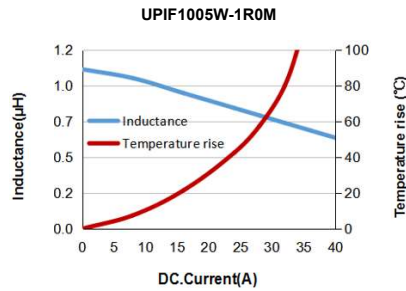
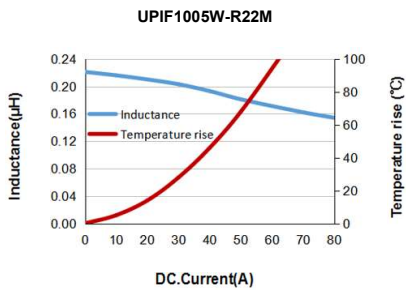
UPIF1004W-3300M



● **UPIF1005W Series**

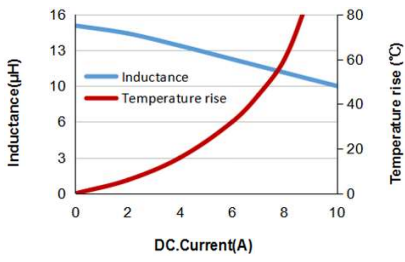
| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|----------------|--|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIF1005W-R22M | 0.22 | 0.68 | 0.8 | 65.0 | 37.0 | 3.0 |
| UPIF1005W-1R0M | 1.0 | 2.6 | 3.0 | 30.0 | 23.0 | 3.0 |
| UPIF1005W-1R5M | 1.5 | 3.2 | 3.8 | 25.0 | 21.0 | 3.0 |
| UPIF1005W-2R2M | 2.2 | 4.5 | 6.0 | 19.0 | 15.0 | 3.0 |
| UPIF1005W-3R3M | 3.3 | 8.4 | 10.0 | 16.0 | 13.0 | 3.0 |
| UPIF1005W-4R7M | 4.7 | 12.5 | 14.0 | 15.0 | 11.0 | 3.0 |
| UPIF1005W-5R6M | 5.6 | 14.5 | 17.0 | 14.0 | 9.5 | 3.0 |
| UPIF1005W-6R8M | 6.8 | 16.4 | 18.5 | 14.0 | 9.0 | 3.0 |
| UPIF1005W-100M | 10 | 23.5 | 28.0 | 10.0 | 8.0 | 3.0 |
| UPIF1005W-150M | 15 | 34.7 | 42.0 | 7.5.0 | 6.5 | 3.0 |
| UPIF1005W-220M | 22 | 45.0 | 50.0 | 6.0 | 5.5 | 3.0 |
| UPIF1005W-330M | 33 | 73.4 | 86.0 | 5.2 | 4.8 | 3.0 |
| UPIF1005W-470M | 47 | 115.4 | 127 | 4.5 | 3.7 | 3.0 |
| UPIF1005W-101M | 100 | 267 | 290 | 2.8 | 2.1 | 3.0 |

Typical performance curves:

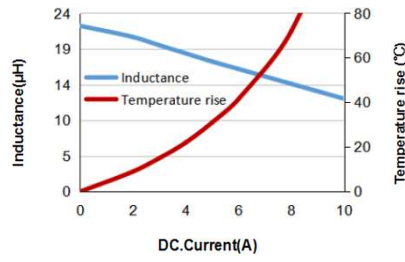




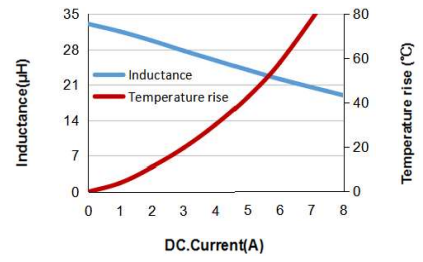
UPIF1005W-150M



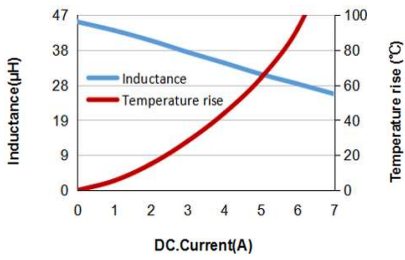
UPIF1005W-220M



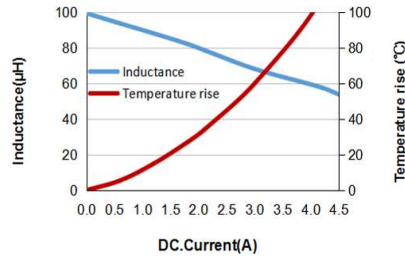
UPIF1005W-330M



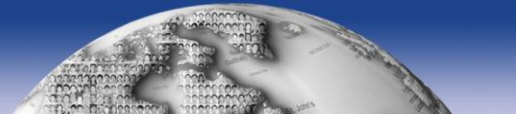
UPIF1005W-470M



UPIF1005W-101M



* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

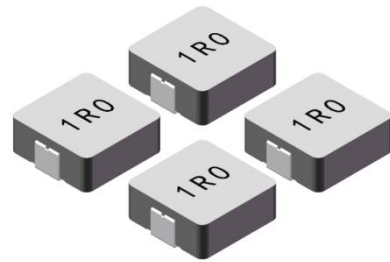


UPI B SERIES

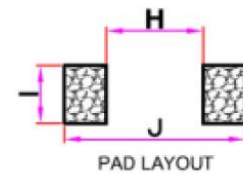
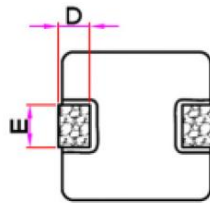
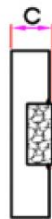
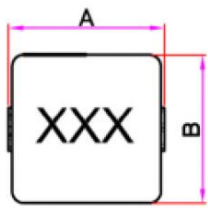
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

Applications:

- . PDA/Notebook/Desktop, and server applications.
- . DC/DC converters in distributed power systems.
- . DC/DC converter for Field Programmable Gate Array(FPGA).



Shape and Dimensions (Dimensions are in mm):



| Item | A | B | C | D | E | H | I | J |
|-----------|----------|----------|---------|---------|---------|-----|-----|------|
| UPIB0603W | 7.3±0.3 | 6.6±0.3 | 2.8±0.2 | 1.6±0.3 | 3.0±0.3 | 3.7 | 3.5 | 8.4 |
| UPIB1004W | 11.0±0.5 | 10.0±0.3 | 3.8±0.2 | 2.0±0.5 | By each | 5.4 | 4.1 | 13.6 |

Features :

- . Low profile and low DCR.
- . Shielded construction.
- . handles high transient current spikes without saturation
- . **B** type frequency up to **5MHz**.
- . Ultra low buzz noise, due to composite construction.
- . RoHS compliant.

Characteristics:

- . Saturation Current (Isat) : The current causes L_0 dropped approximately 30% typically.
- . Temperature Rise Current(Irms) : The current causes the coil temperature rised approximately $\Delta T=40^{\circ}C$ without core Loss.
- . Operating Temperature : $-55^{\circ}C$ to $125^{\circ}C$.

Product Identification :

UPI B 0603W - 2R2 M

(1) (2) (3) (4) (5)

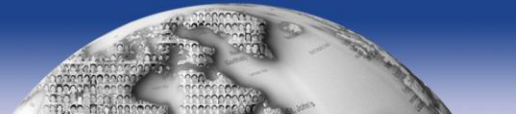
- (1) Series: **Ultra High Current SMT Power Inductors.**
- (2) Style: **B-Powder Typ.**
- (3) Dimensions: **0603W** is size.
- (4) Inductance: **2R2** for **2.2 uH**.
- (5) Inductance tolerance: **M**: $\pm 20\%$.

Test equipments :

- . L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source.
- . DCR tested by Milli-ohm meter.
- . Electrical specifications at $25^{\circ}C$.

Handling and precautions :

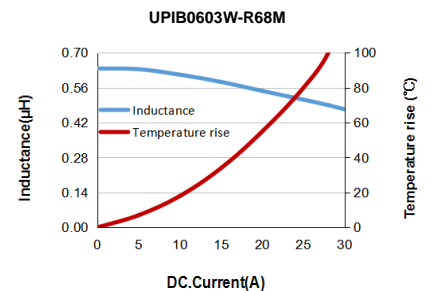
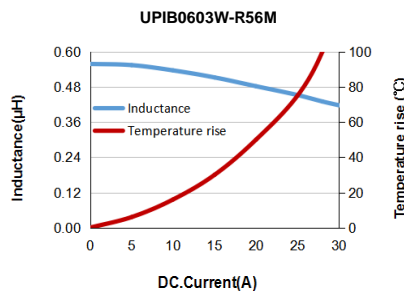
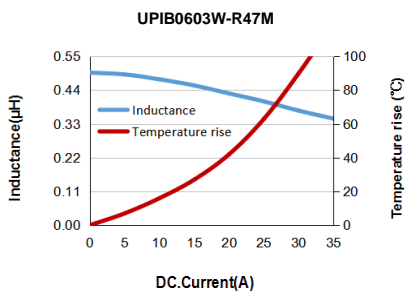
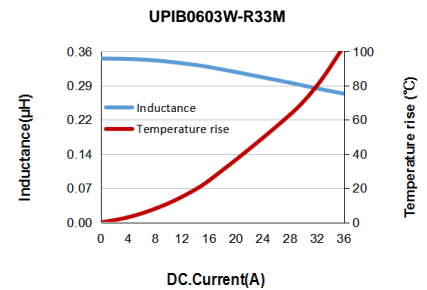
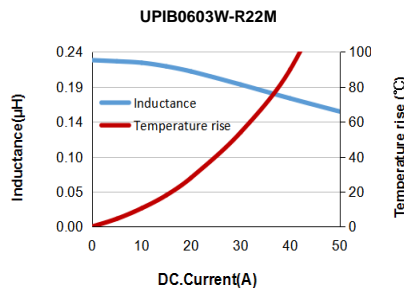
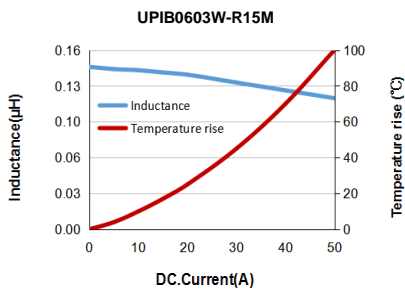
- . Please contact us before cleaning this product.

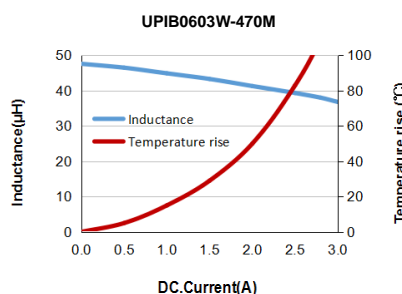
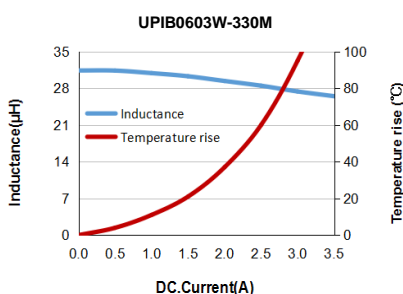
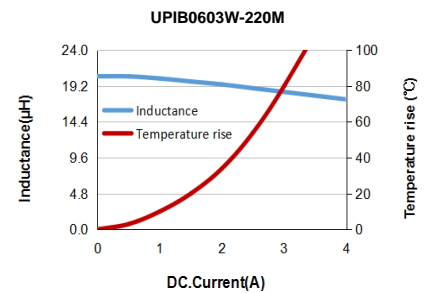
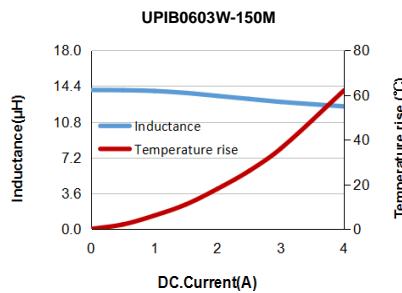
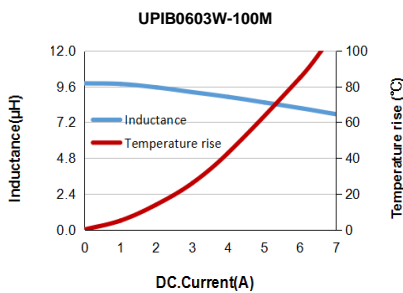
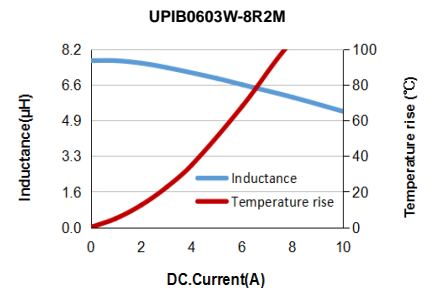
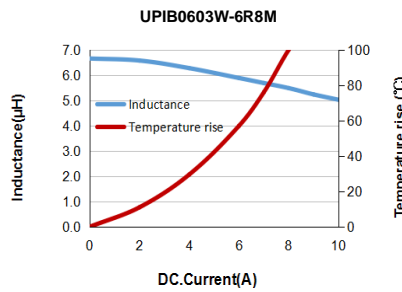
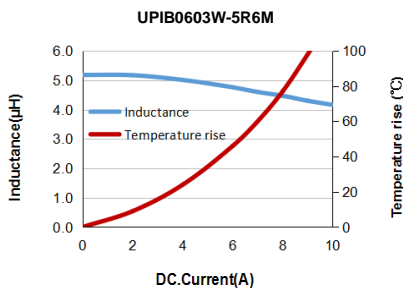
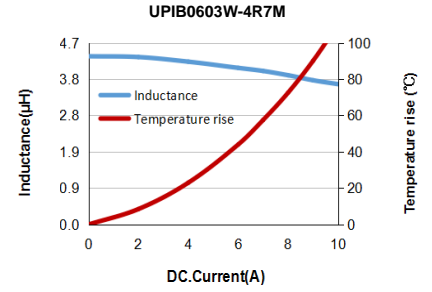
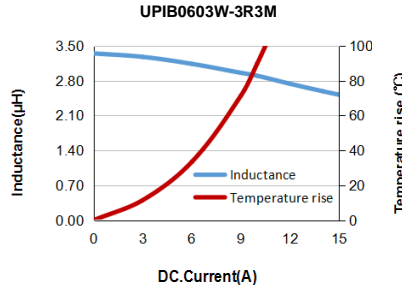
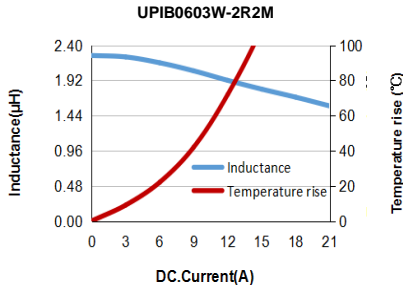
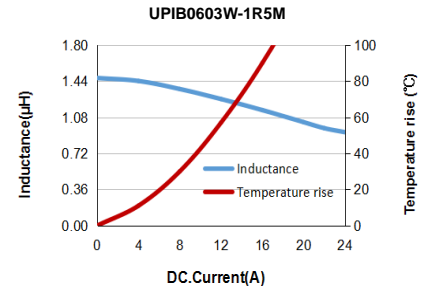
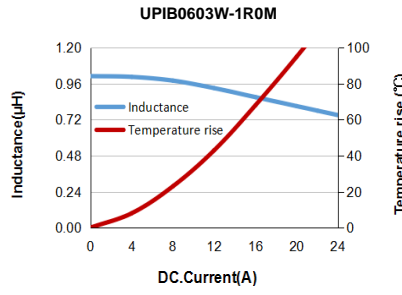
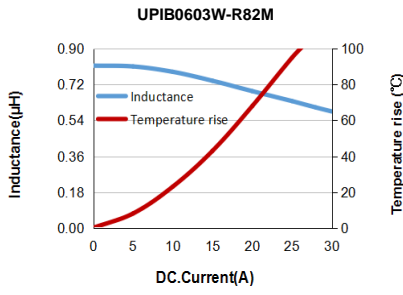
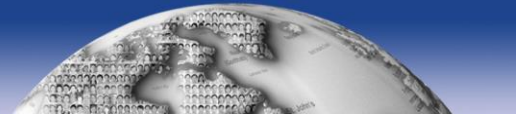


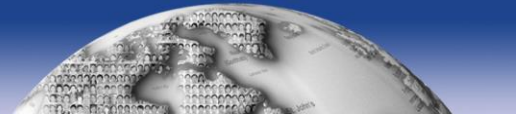
● **UPIB0603W Series**

| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | Isat (A) Typ | Irms (A) Typ | E mm ±0.5 |
|----------------|--|------------|---------|--------------------|--------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIB0603W-R15M | 0.15 | 1.6 | 1.9 | 45.0 | 27.0 | 3.0 |
| UPIB0603W-R22M | 0.22 | 2.2 | 2.8 | 40.0 | 23.0 | 3.0 |
| UPIB0603W-R33M | 0.33 | 3.3 | 3.9 | 32.0 | 20.0 | 3.0 |
| UPIB0603W-R47M | 0.47 | 3.8 | 4.2 | 26.0 | 17.5 | 3.0 |
| UPIB0603W-R56M | 0.56 | 4.2 | 5.0 | 25.5 | 16.5 | 3.0 |
| UPIB0603W-R68M | 0.68 | 4.7 | 5.5 | 25.0 | 15.5 | 3.0 |
| UPIB0603W-R82M | 0.82 | 6.8 | 8.0 | 24.0 | 13.0 | 3.0 |
| UPIB0603W-1R0M | 1.0 | 6.9 | 10.0 | 22.0 | 11.0 | 3.0 |
| UPIB0603W-1R5M | 1.5 | 10.5 | 15.0 | 18.0 | 9.0 | 3.0 |
| UPIB0603W-2R2M | 2.2 | 17.5 | 20.0 | 14.0 | 8.0 | 3.0 |
| UPIB0603W-3R3M | 3.3 | 19.5 | 30.0 | 13.5 | 6.0 | 3.0 |
| UPIB0603W-4R7M | 4.7 | 34.0 | 40.0 | 10.0 | 5.5 | 3.0 |
| UPIB0603W-5R6M | 5.6 | 41.0 | 48.0 | 9.0 | 5.0 | 3.0 |
| UPIB0603W-6R8M | 6.8 | 51.0 | 60.0 | 8.0 | 4.5 | 3.0 |
| UPIB0603W-8R2M | 8.2 | 58.0 | 68.0 | 7.5 | 4.0 | 3.0 |
| UPIB0603W-100M | 10 | 72.0 | 85.0 | 6.0 | 3.5 | 3.0 |
| UPIB0603W-150M | 15 | 104 | 123 | 4.0 | 3.0 | 3.0 |
| UPIB0603W-220M | 22 | 161 | 190 | 3.5 | 2.0 | 3.0 |
| UPIB0603W-330M | 33 | 204 | 240 | 2.5 | 2.0 | 3.0 |
| UPIB0603W-470M | 47 | 308 | 363 | 2.0 | 1.75 | 3.0 |

Typical performance curves :



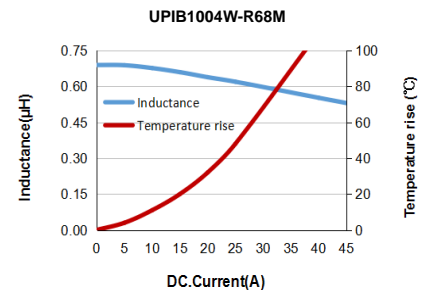
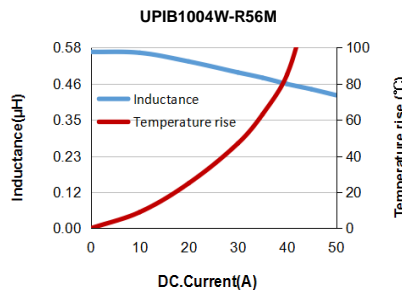
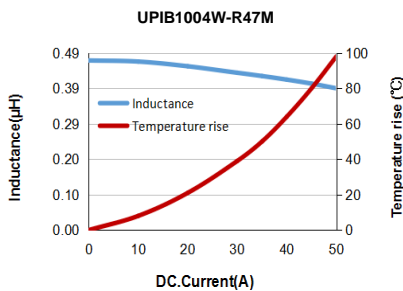
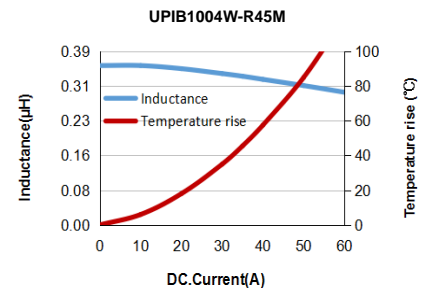
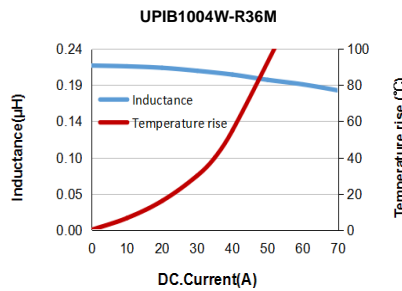
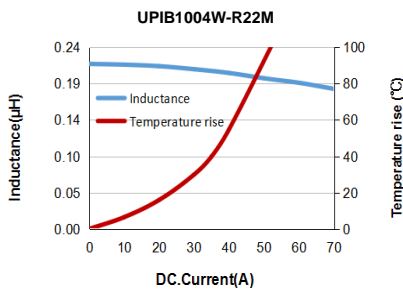


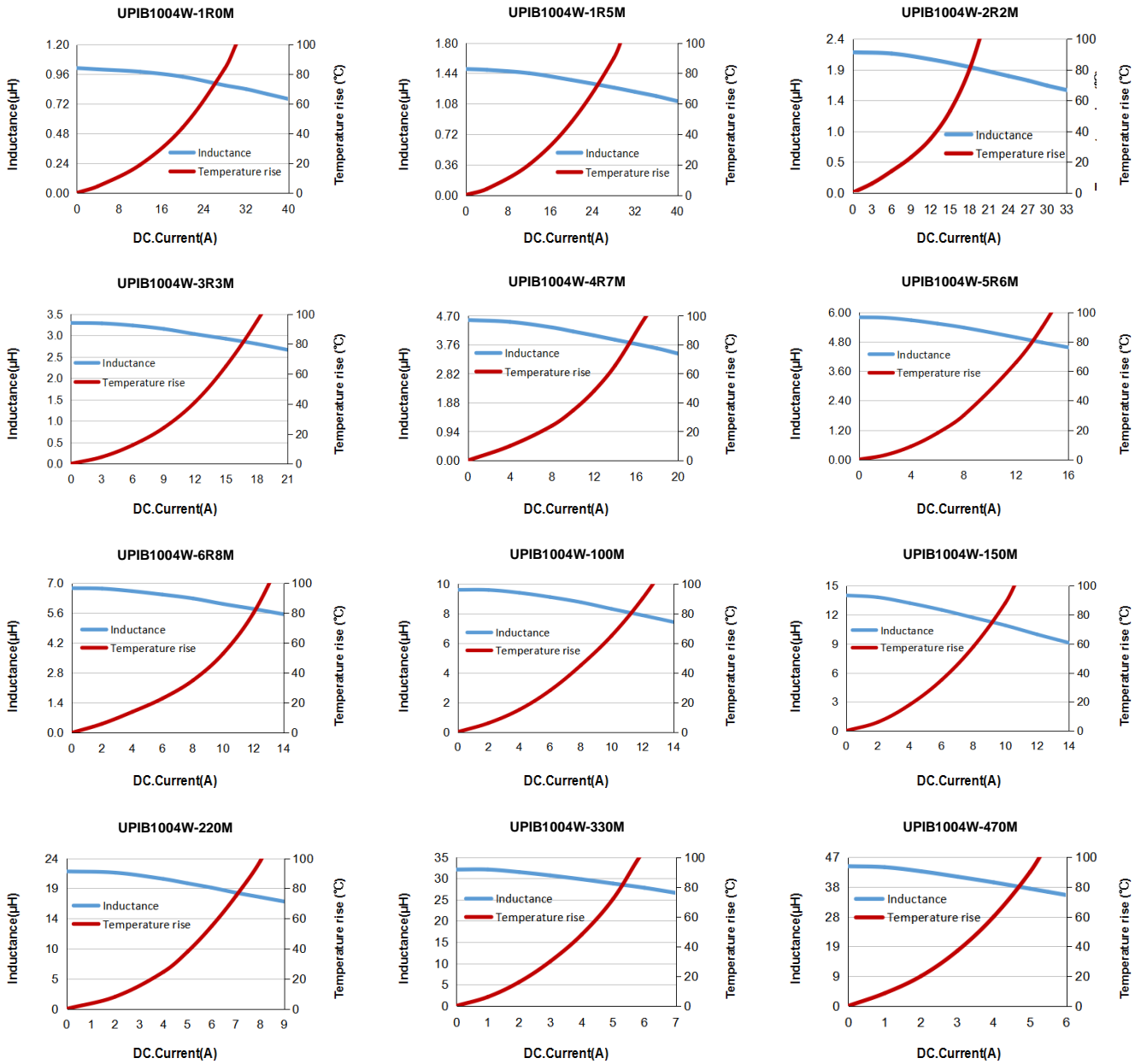
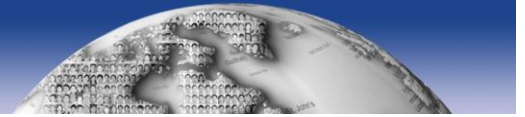


● **UPIB1004W Series**

| Part No. | Inductance @100kHz L ₀ (uH) | DCR (mΩ) | | I sat (A) Typ. | I rms (A) Typ. | E mm ±0.5 |
|----------------|--|------------|---------|----------------------|----------------------|-----------------|
| | | Typical | Maximum | | | |
| UPIB1004W-R22M | 0.22 | 0.8 | 1.0 | 60.0 | 35.0 | 3.0 |
| UPIB1004W-R36M | 0.36 | 1.1 | 1.2 | 60.0 | 31.0 | 3.0 |
| UPIB1004W-R45M | 0.45 | 1.3 | 1.5 | 45.0 | 29.0 | 3.0 |
| UPIB1004W-R47M | 0.47 | 1.3 | 1.5 | 43.0 | 28.0 | 3.0 |
| UPIB1004W-R56M | 0.56 | 1.6 | 1.8 | 40.0 | 25.0 | 3.0 |
| UPIB1004W-R68M | 0.68 | 2.4 | 2.7 | 39.0 | 22.0 | 3.0 |
| UPIB1004W-1R0M | 1.0 | 3.0 | 3.3 | 36.0 | 18.0 | 3.0 |
| UPIB1004W-1R5M | 1.5 | 4.0 | 4.6 | 33.0 | 16.0 | 3.0 |
| UPIB1004W-2R2M | 2.2 | 5.9 | 7.0 | 27.0 | 12.0 | 3.0 |
| UPIB1004W-3R3M | 3.3 | 10.0 | 11.8 | 20.0 | 11.0 | 3.0 |
| UPIB1004W-4R7M | 4.7 | 13.5 | 15.5 | 17.0 | 10.0 | 3.0 |
| UPIB1004W-5R6M | 5.6 | 16.5 | 19.3 | 14.0 | 9.0 | 3.0 |
| UPIB1004W-6R8M | 6.8 | 19.5 | 23.3 | 13.5 | 8.5 | 3.0 |
| UPIB1004W-100M | 10 | 26.0 | 30.0 | 12.0 | 7.5 | 3.0 |
| UPIB1004W-150M | 15 | 38.0 | 45.0 | 10.0 | 6.25 | 3.0 |
| UPIB1004W-220M | 22 | 65.0 | 74.0 | 7.0 | 5.0 | 3.0 |
| UPIB1004W-330M | 33 | 95.0 | 112 | 5.0 | 3.5 | 3.0 |
| UPIB1004W-470M | 47 | 142 | 167 | 4.5 | 3.0 | 3.0 |

Typical performance curves :





* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.