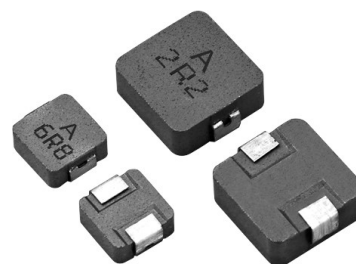


UPI A SERIES

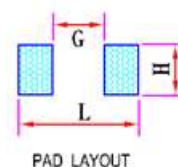
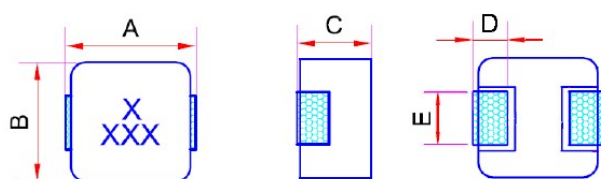
ULTRA HIGH CURRENT SMT POWER INDUCTOR.

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 A S 0603 - 2R2 M

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

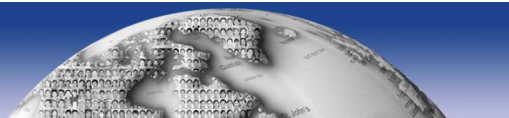
- (1) Series : Ultra High Current SMT Power Inductors.
- (2) Style : A-Powder Type S-small Size.
- (3) Dimensions : **0603** is size.
- (4) Inductance: **2R2** for **2.2** uH.
- (5) Inductance tolerance: **M**: $\pm 20\%$.

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 :

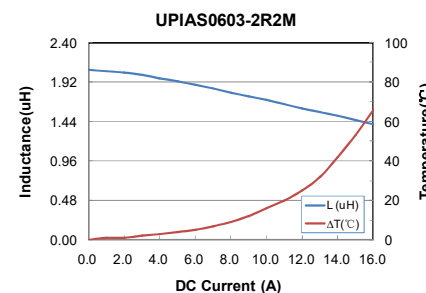
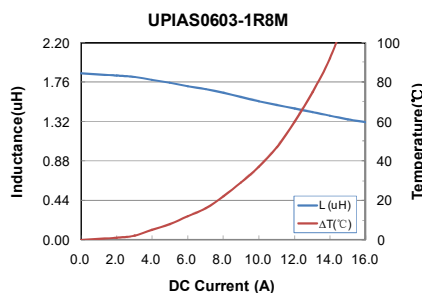
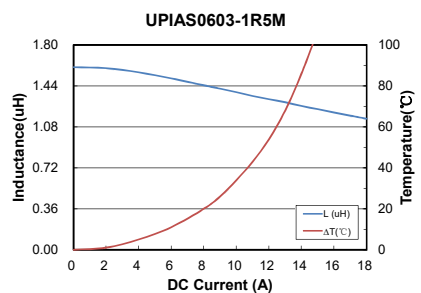
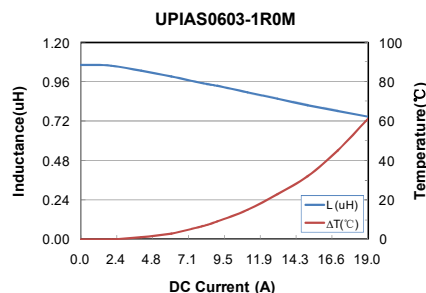
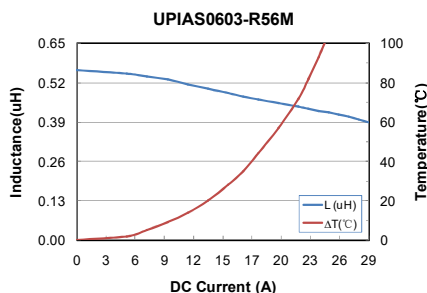
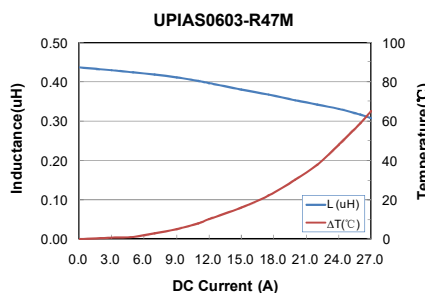
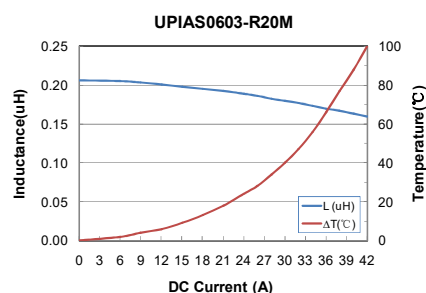
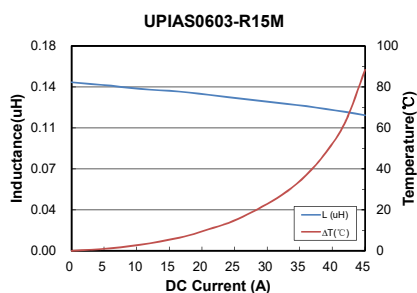
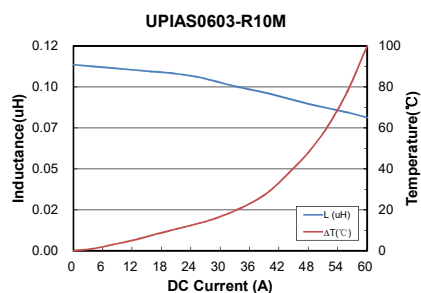
- . Please contact us before cleaning this product.



● UPIAS0603 series

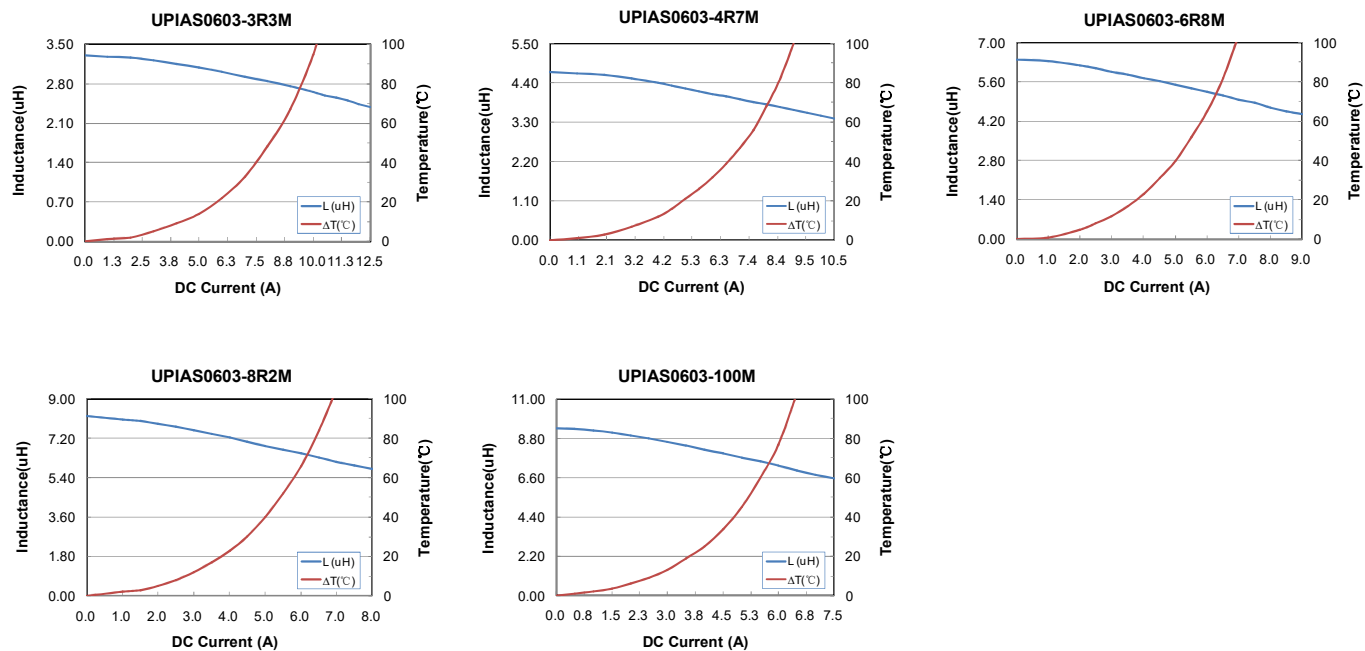
Part No.	Inductance @100kHz L_0 (μH)	DCR ($\text{m}\Omega$)		I sat (A) Typ.	I rms (A) Typ.	E mm ± 0.5
		Typical	Maximum			
UPIAS0603-R10M	0.10	0.9	1.7	42.0	32.0	2.0
UPIAS0603-R15M	0.15	1.5	2.5	38.0	26.0	2.0
UPIAS0603-R20M	0.20	1.3	3.0	36.0	24.0	2.0
UPIAS0603-R47M	0.47	3.6	4.2	26.0	17.5	3.0
UPIAS0603-R56M	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 :

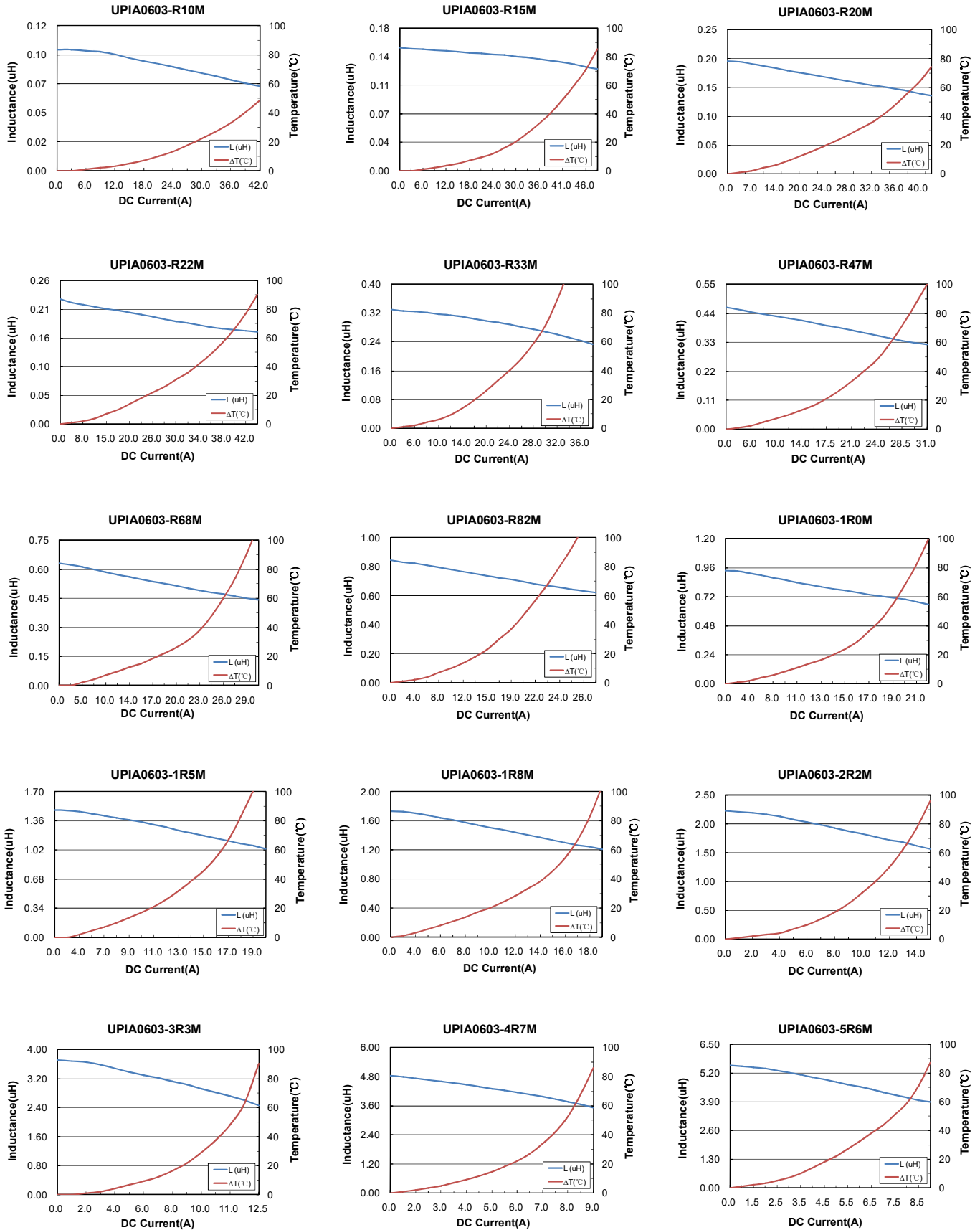


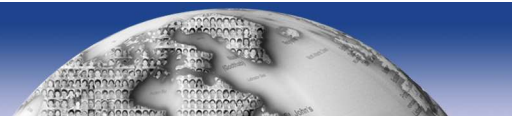
● UPIA0603 series

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

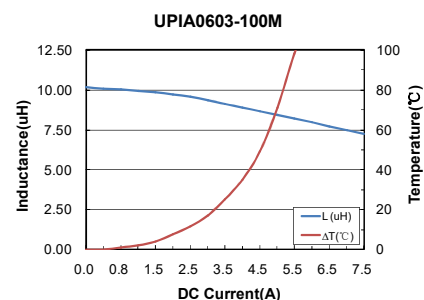
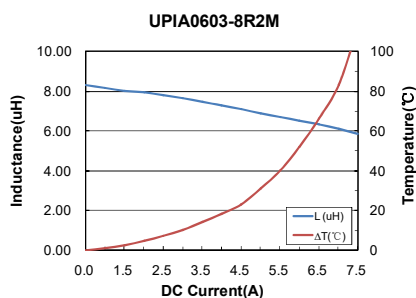
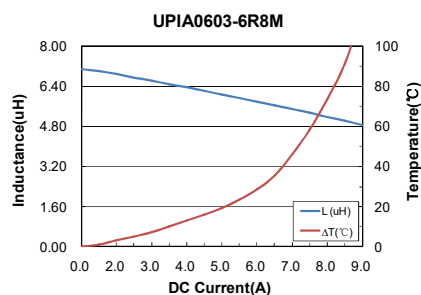


Typical performance curves :





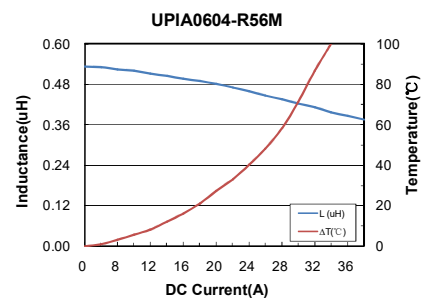
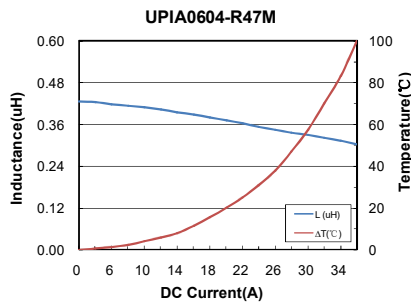
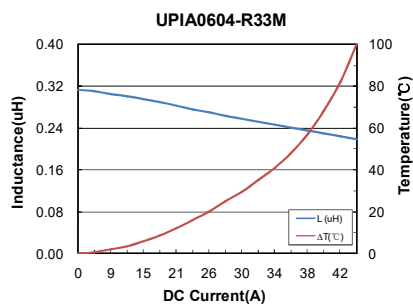
Typical performance curves :



● UPIA0604 series

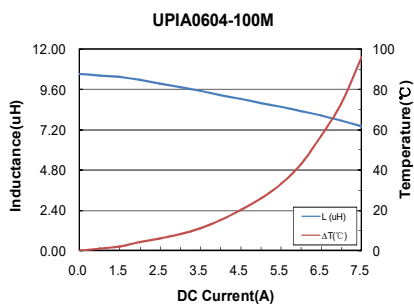
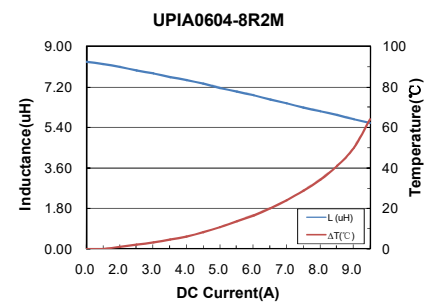
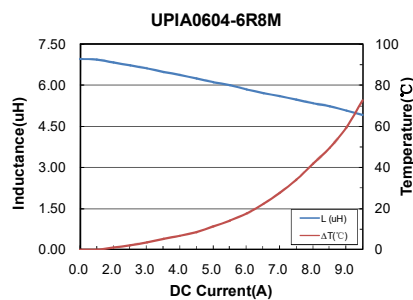
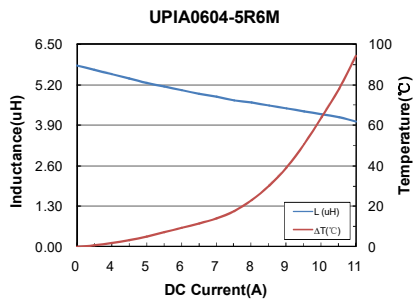
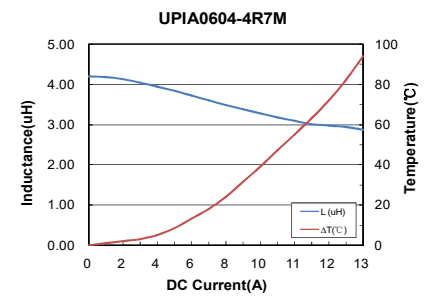
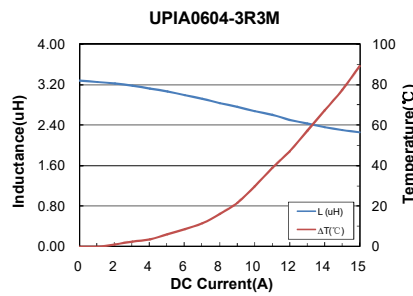
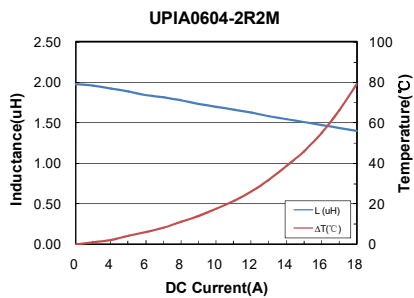
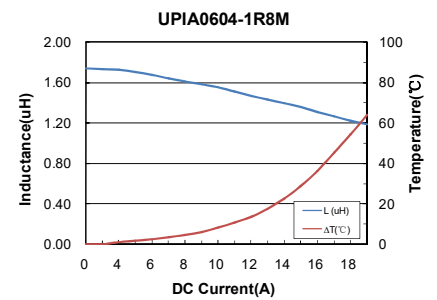
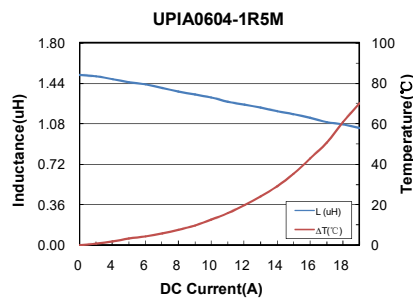
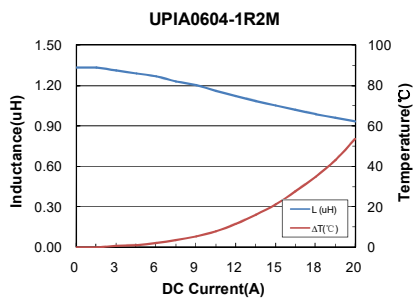
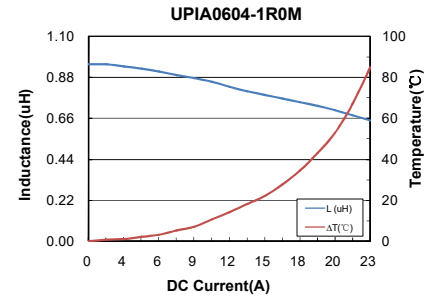
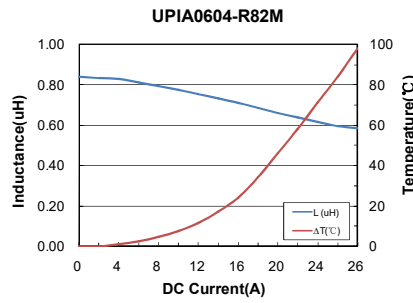
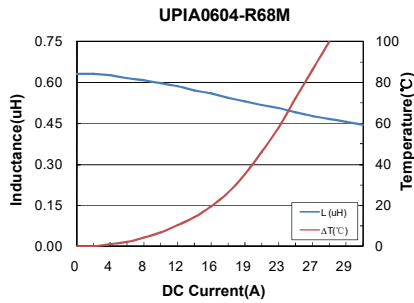
Part No.	Inductance @100kHz L_0 (uH)	DCR (mΩ)		I_{sat} (A) Typ.	I_{rms} (A) Typ.	E mm ±0.5
		Typical	Maximum			
UPIA0604-R33M	0.33	1.9	2.1	32.0	25.0	2.0
UPIA0604-R47M	0.47	2.22	2.5	30.0	20.0	2.0
UPIA0604-R56M	0.56	2.8	3.0	29.0	19.0	2.0
UPIA0604-R68M	0.68	3.3	3.8	28.0	17.0	2.0
UPIA0604-R82M	0.82	4.85	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

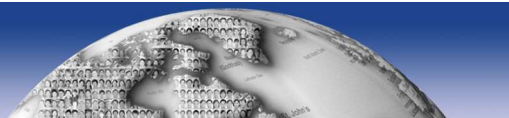
Typical performance curves :





Typical performance curves :

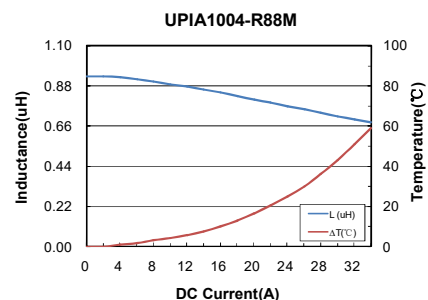
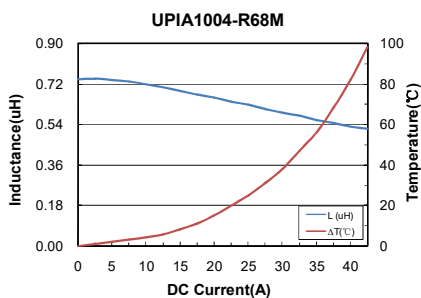
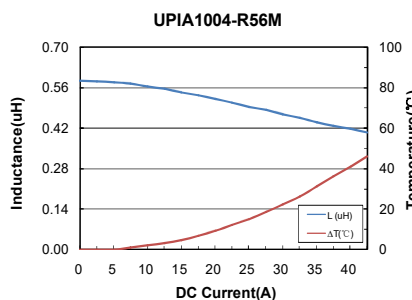
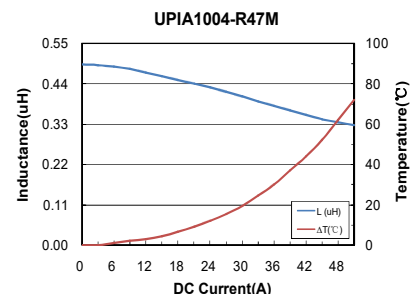
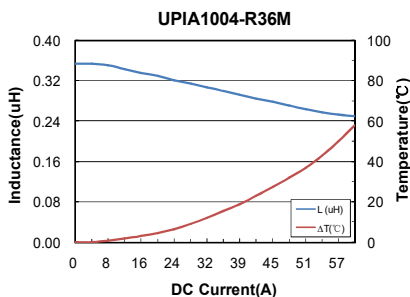
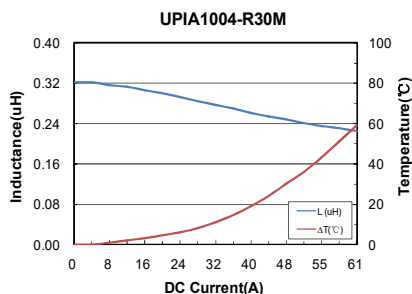


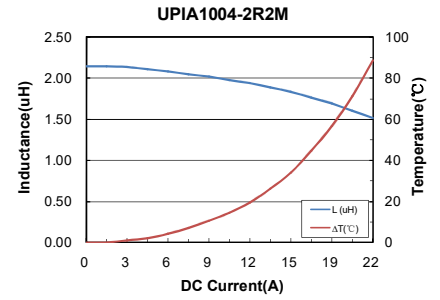
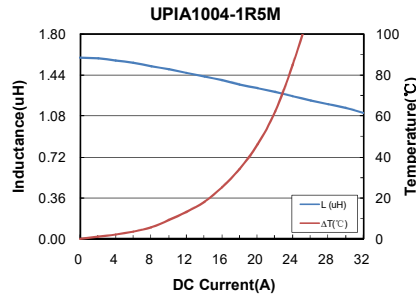
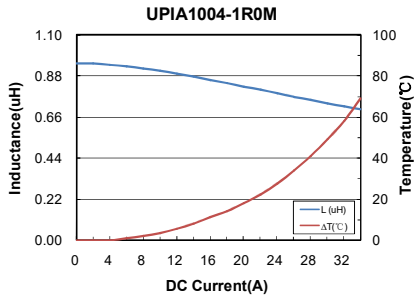


● UPIA1004 series

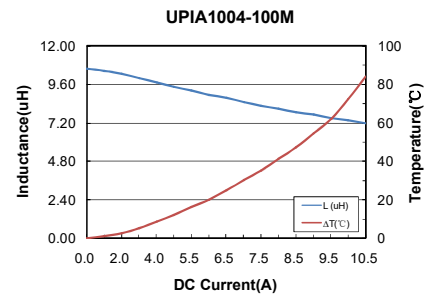
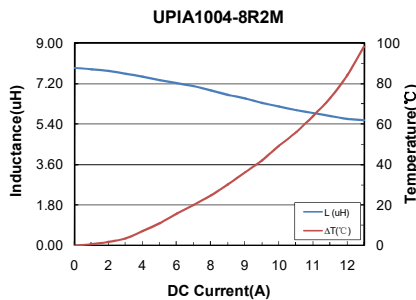
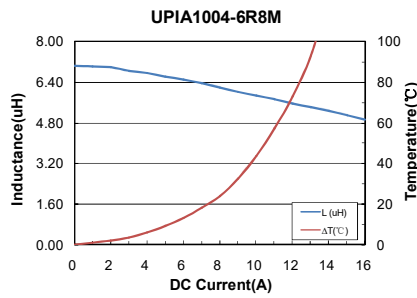
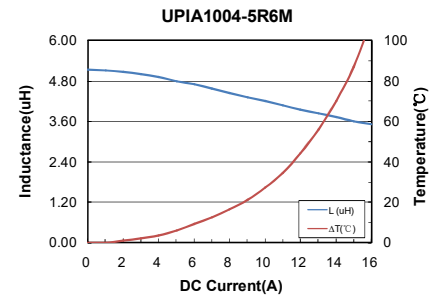
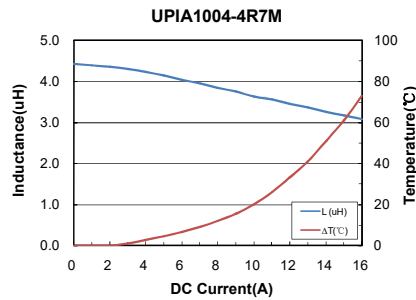
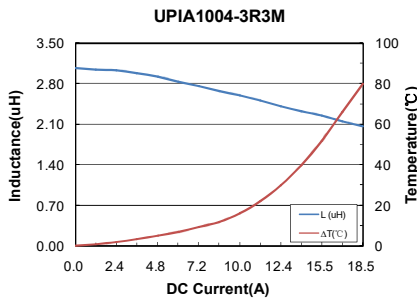
Part No.	Inductance @100kHz L_0 (μ H)	DCR ($m\Omega$)		I sat (A) Typ.	I rms (A) Typ.	E mm ± 0.5
		Typical	Maximum			
UPIA1004-R30M	0.30	1.0	1.4	40.0	28.0	3.0
UPIA1004-R36M	0.36	1.0	1.4	40.0	28.0	3.0
UPIA1004-R47M	0.47	1.4	1.6	38.0	26.0	3.0
UPIA1004-R56M	0.56	1.5	1.9	36.0	25.0	3.0
UPIA1004-R68M	0.68	1.7	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 :



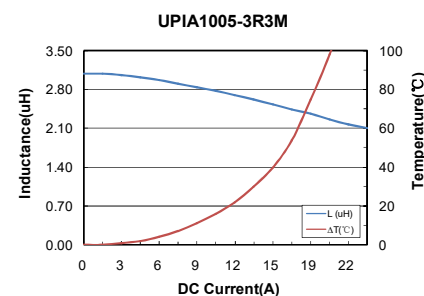
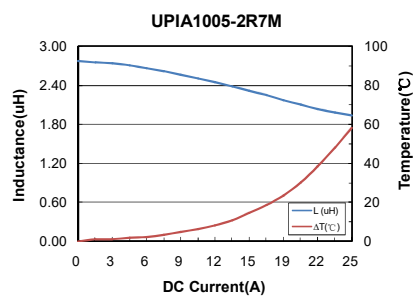
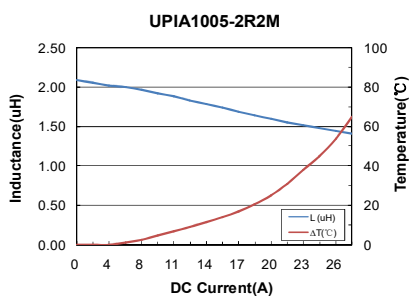
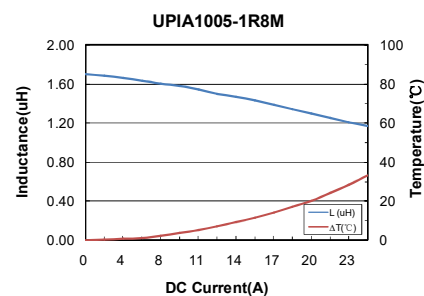
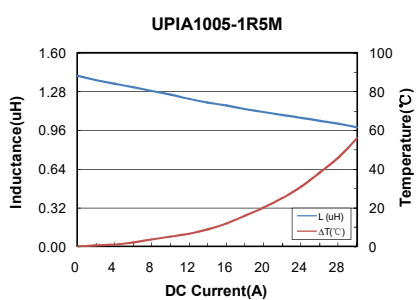
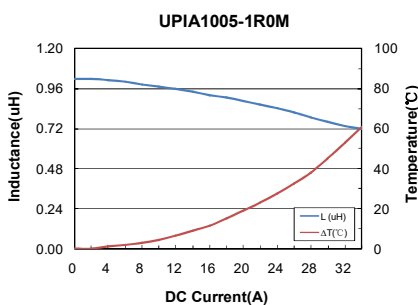
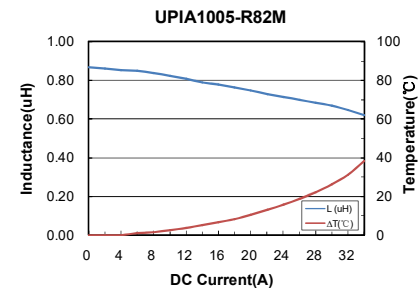
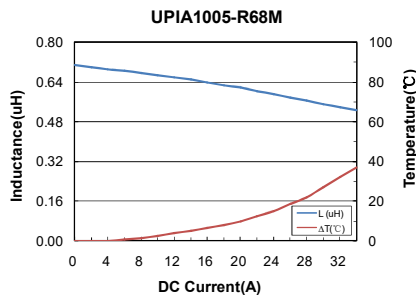
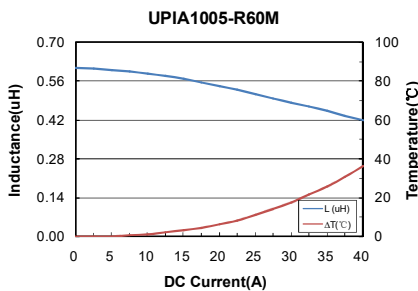
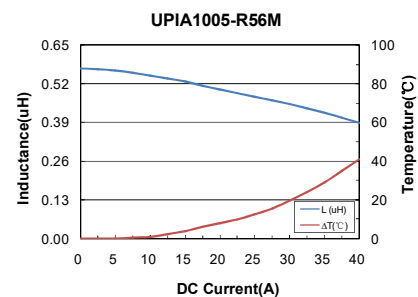
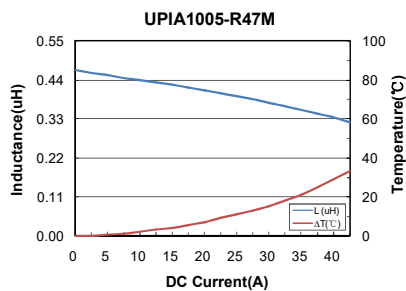
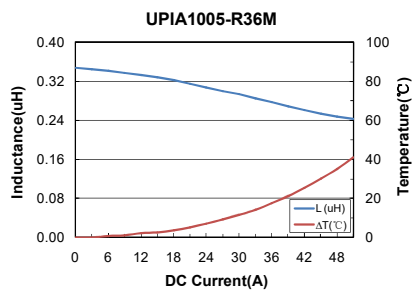
● UPIA1005 series

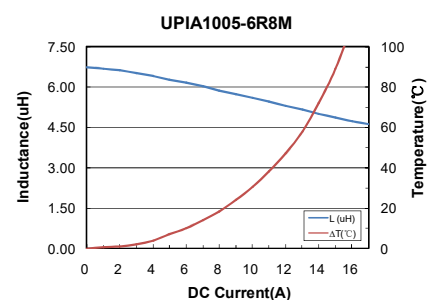
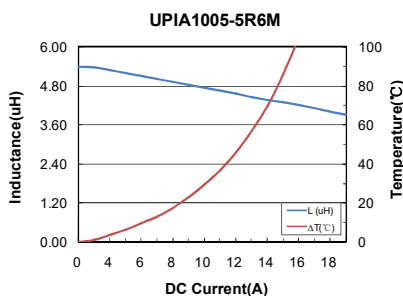
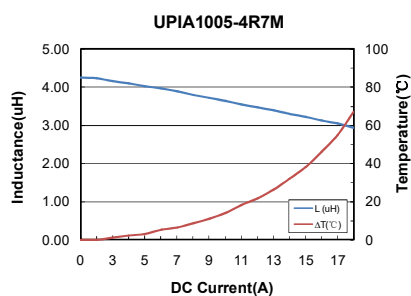
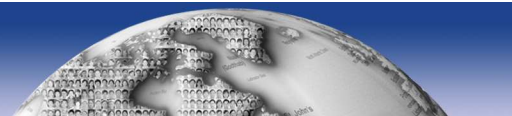
Part No.	Inductance @100kHz L_0 (uH)	DCR (mΩ)		I sat (A) Typ.	I rms (A) Typ.	E mm ±0.5
		Typical	Maximum			
UPIA1005-R36M	0.36	0.7	0.92	40.0	35.0	3.0
UPIA1005-R47M	0.47	0.92	1.04	38.0	32.0	3.0
UPIA1005-R56M	0.56	1.1	1.21	36.0	30.0	3.0
UPIA1005-R60M	0.60	1.25	1.5	32.0	29.2	3.0
UPIA1005-R68M	0.68	1.35	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



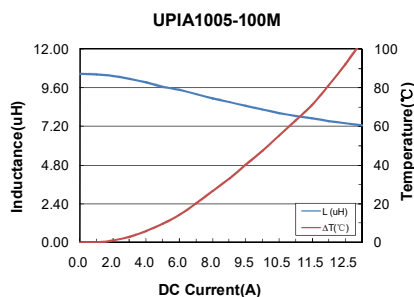
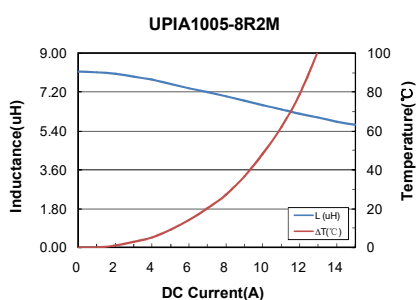
UPIA1005-6R8M	6.8	16.0	20.0	10.0	8.0	3.0
UPIA1005-8R2M	8.2	22.4	24.0	9.0	7.5	3.0
UPIA1005-100M	10.0	24.7	28.0	8.0	7.0	3.0

Typical performance curves :



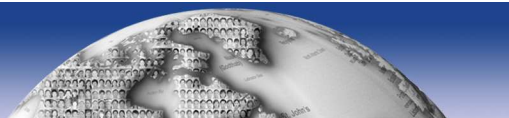


Typical performance curves :



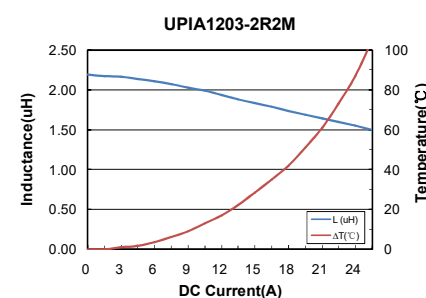
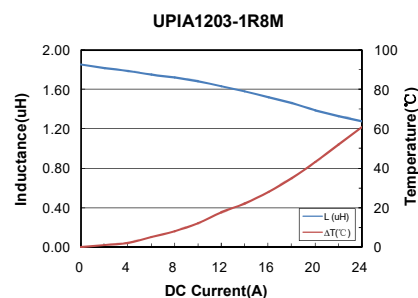
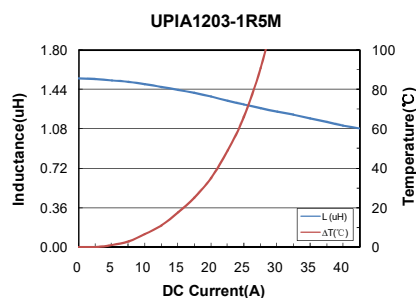
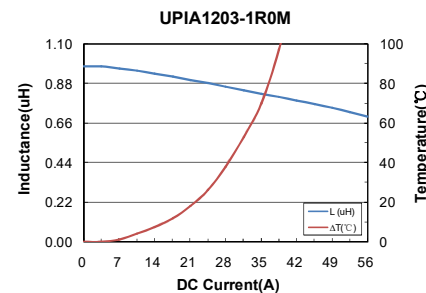
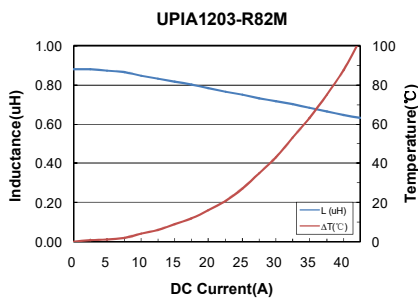
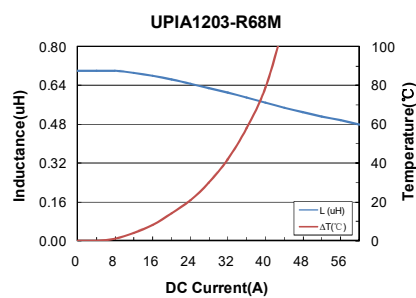
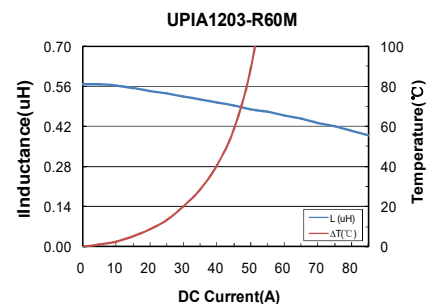
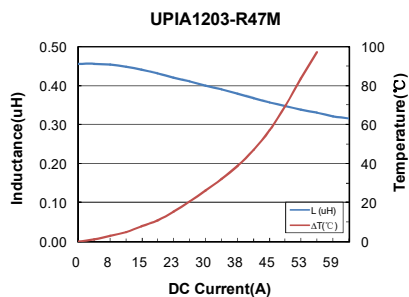
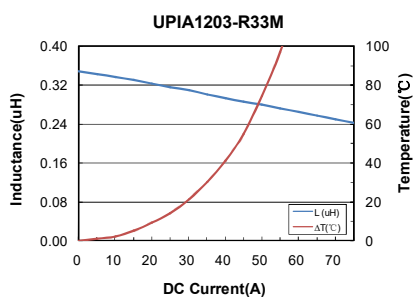
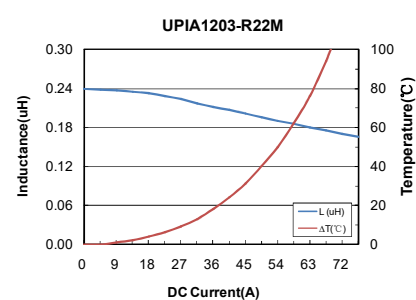
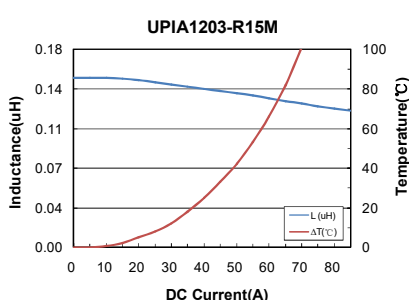
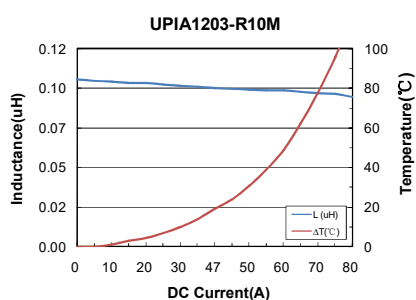
● UPIA1203 series

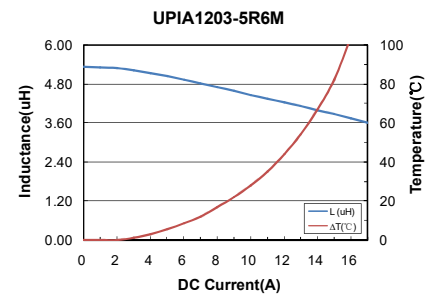
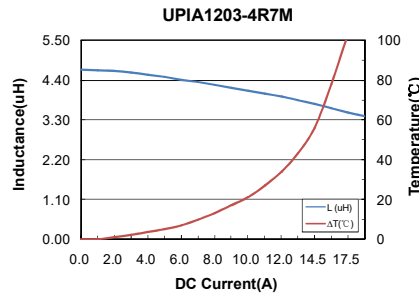
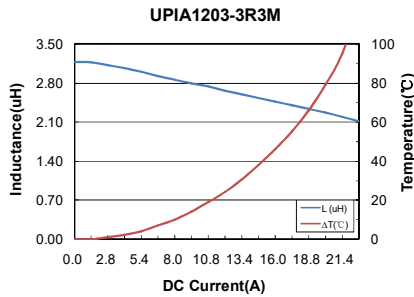
Part No.	Inductance @100kHz L_0 (uH)	DCR (mΩ)		I sat (A) Typ.	I rms (A) Typ.	E mm ±0.5
		Typical	Maximum			
UPIA1203-R10M	0.10	0.6	0.96	56.0	43.0	3.0
UPIA1203-R15M	0.15	0.9	1.2	50.0	41.0	3.0
UPIA1203-R22M	0.22	0.82	1.3	50.0	38.5	3.0
UPIA1203-R33M	0.33	1.25	1.5	50.0	36.5	3.0
UPIA1203-R47M	0.47	1.3	2.0	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



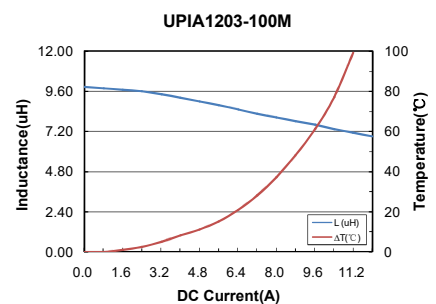
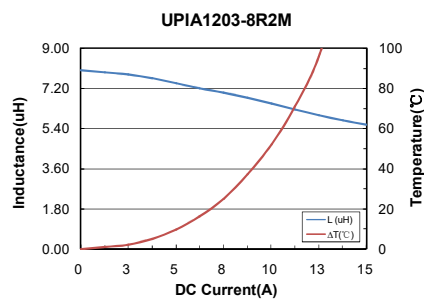
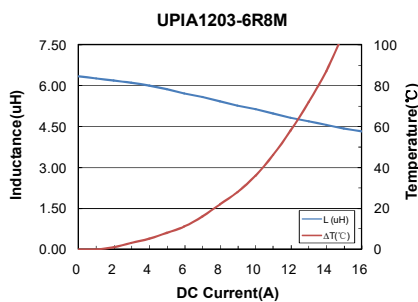
UPIA1203-5R6M	5.6	16.7	18.0	14.0	9.5	3.0
UPIA1203-6R8M	6.8	17.5	22.0	13.0	9.0	3.0
UPIA1203-8R2M	8.2	25.5	28.0	11.0	8.0	3.0
UPIA1203-100M	10.0	33.7	35.0	10.0	7.0	3.0

Typical performance curves :





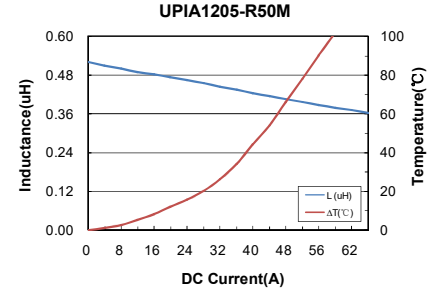
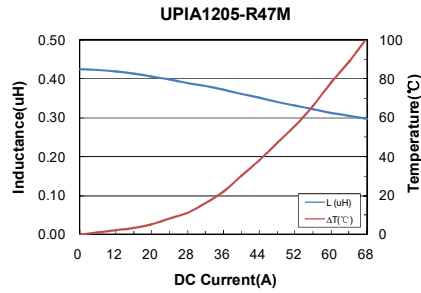
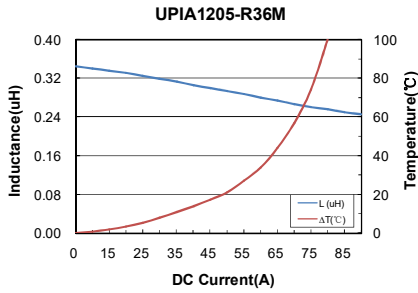
Typical performance curves :



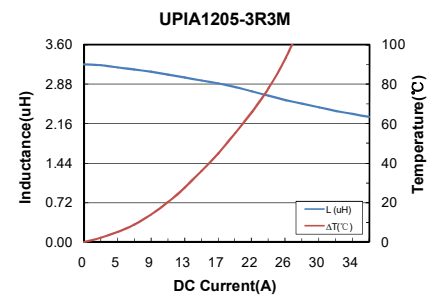
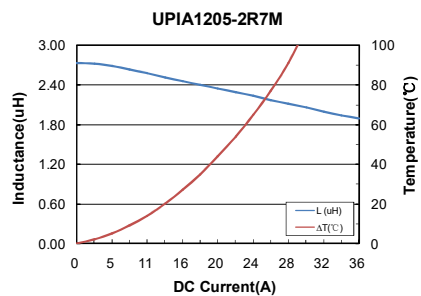
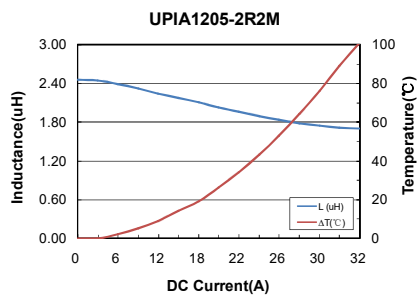
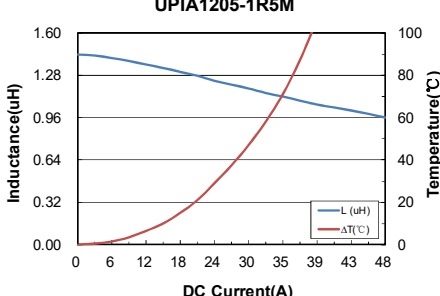
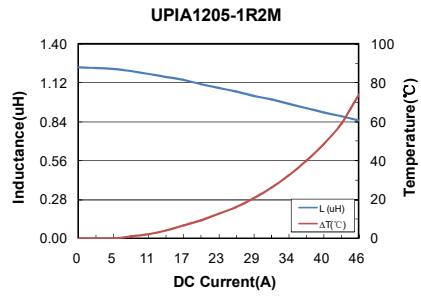
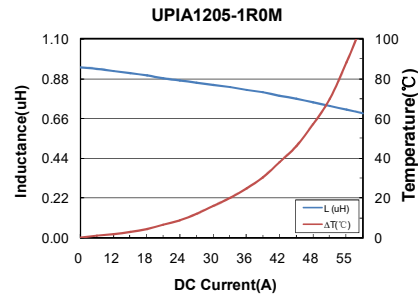
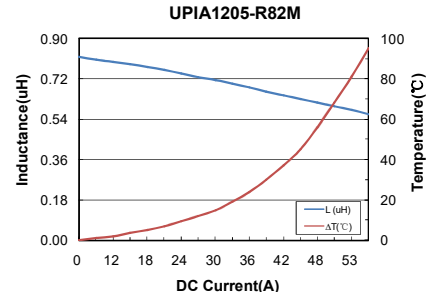
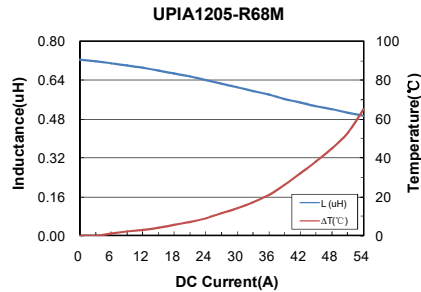
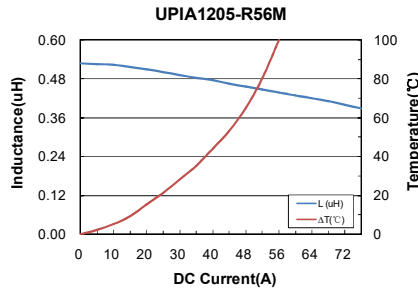
● UPIA1205 series

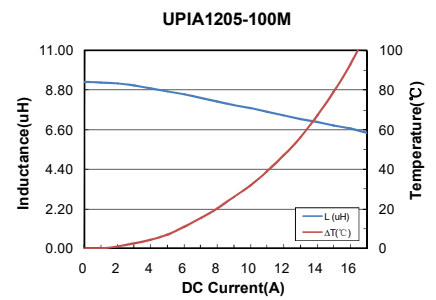
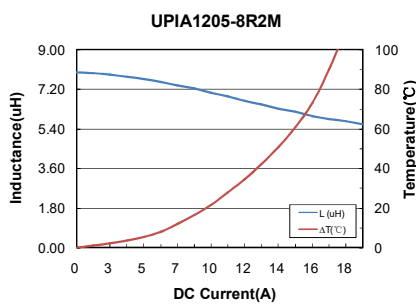
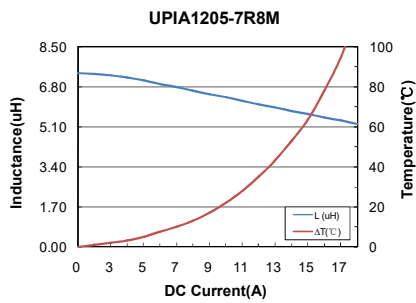
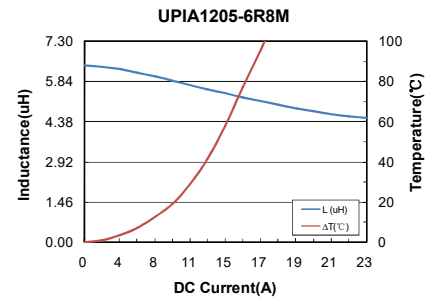
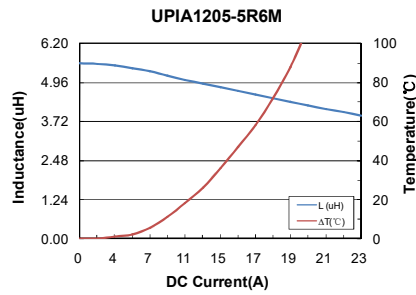
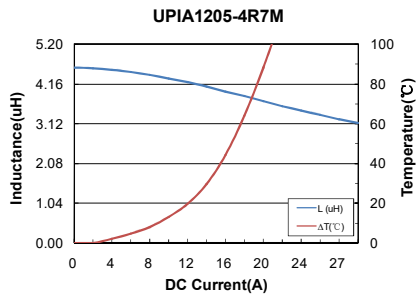
Part No.	Inductance @100kHz L_0 (uH)	DCR (mΩ)		I sat (A) Typ.	I rms (A) Typ.	E mm ±0.5
		Typical	Maximum			
UPIA1205-R36M	0.36	1.0	1.1	75.0	41.0	3.0
UPIA1205-R47M	0.47	1.1	1.3	65.0	38.0	3.0
UPIA1205-R50M	0.50	1.1	1.5	55.0	36.0	3.0
UPIA1205-R56M	0.56	1.4	1.5	55.0	36.0	3.0
UPIA1205-R68M	0.68	1.4	1.7	54.0	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 :

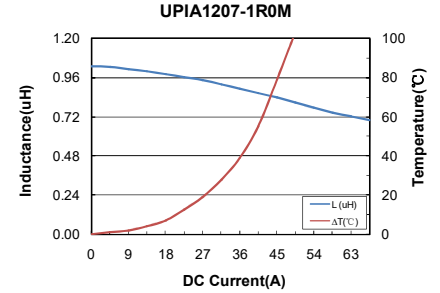
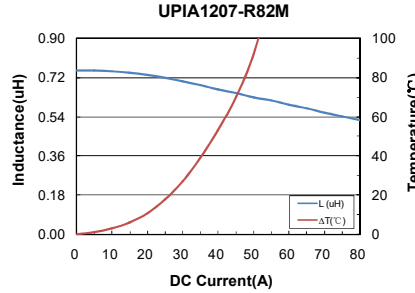
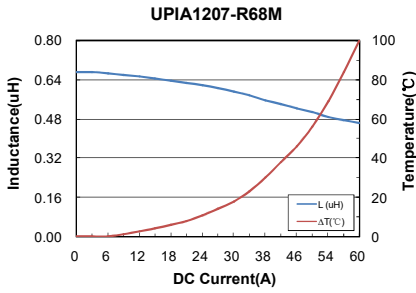
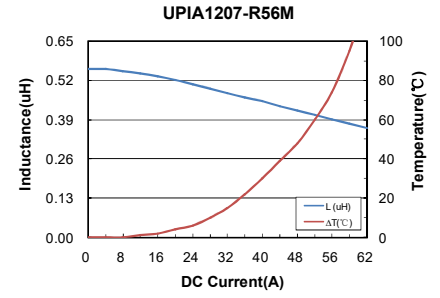
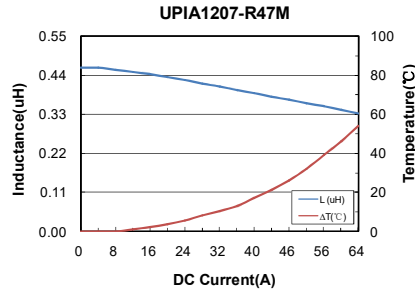
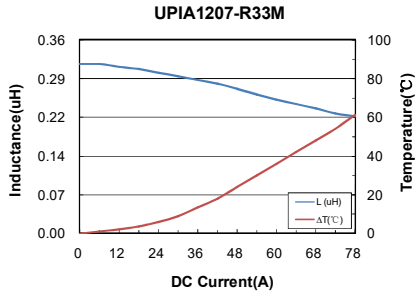




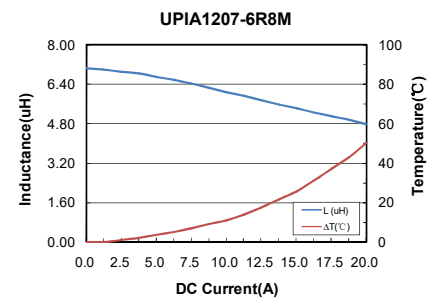
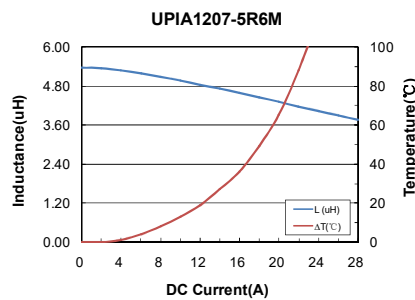
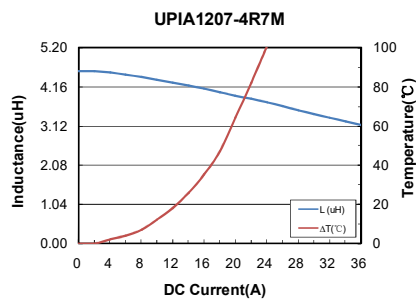
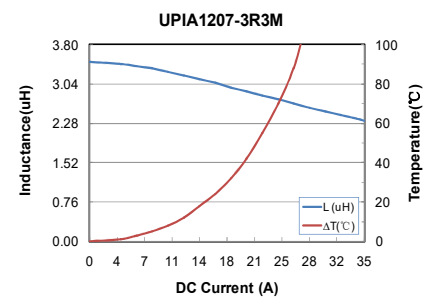
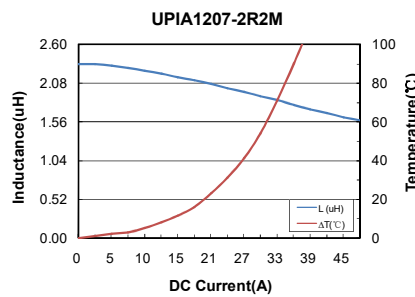
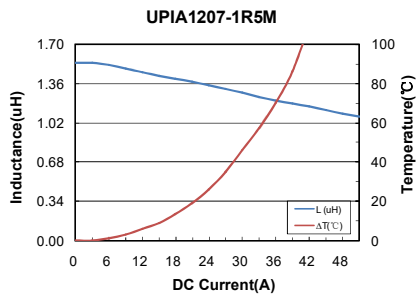
● UPIA1207 series

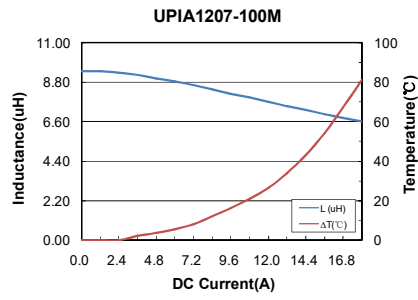
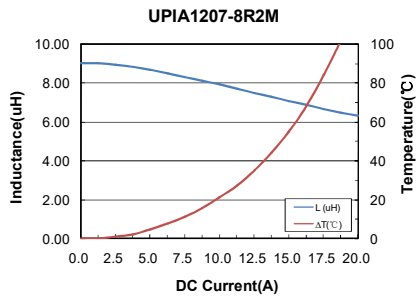
Part No.	Inductance @100kHz L_0 (uH)	DCR (mΩ)		I sat (A) Typ.	I rms (A) Typ.	E mm ±0.5
		Typical	Maximum			
UPIA1207-R33M	0.33	0.8	0.9	65.0	46.0	3.0
UPIA1207-R47M	0.47	1.0	1.2	63.0	41.0	3.0
UPIA1207-R56M	0.56	1.2	1.4	62.0	37.0	3.0
UPIA1207-R68M	0.68	1.45	1.6	60.0	35.0	3.0
UPIA1207-R82M	0.82	1.75	1.9	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.