



### FEATURES

- Magnetic shielded structure
- Low DCR and high efficiency
- Low profile and small size
- High reliability

### APPLICATIONS

- DC-DC converters and power suppliers
- LCD TV's, Blu-ray and gaming consoles
- Tablets, notebooks, servers and printers
- Smart phones, GPS, set top box and base stations
- LED lighting
- Automotive

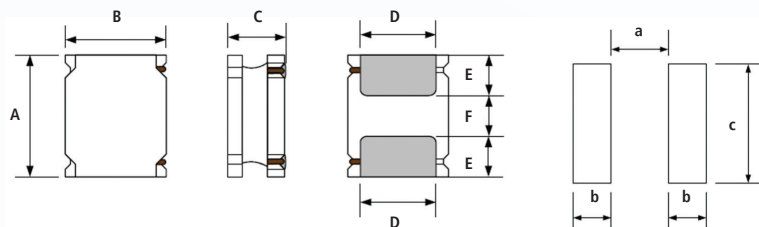
### ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE ( $\mu$ H)	R <sub>dc</sub> ( $\Omega$ )		SATURATION CURRENT <sup>5</sup> (A)		RMS CURRENT <sup>4</sup> (A)	SRF MHZ (REF)
		Max.	Typ.	Max.	Typ.	Typ.	Min.
TYS252010LR47N-10	0.47	0.056	0.047	2.50	3.35	2.35	202
TYS252010LR68N-10	0.68	0.074	0.062	2.20	2.75	2.00	138
TYS252010L1R0N-10	1.0	0.108	0.090	1.85	2.20	1.65	100
TYS252010L1R5N-10	1.5	0.182	0.152	1.80	2.10	1.30	79
TYS252010L2R2N-10	2.2	0.209	0.174	1.20	1.60	1.20	61
TYS252010L3R3M-10	3.3	0.328	0.273	1.05	1.30	0.90	48
TYS252010L4R7M-10	4.7	0.563	0.469	0.95	1.15	0.70	40
TYS252010L6R8M-10	6.8	0.896	0.747	0.78	0.92	0.59	32
TYS252010L100M-10	10	1.092	0.910	0.65	0.78	0.50	26

- 1 Electrical specifications at 20°C.
- 2 Tolerance: M:  $\pm 20\%$ , N:  $\pm 30\%$
- 3 Inductance tested at 100 KHz, 1V
- 4 RMS Current is defined based on temperature rise up to or less than 40°C from 20°C ambient.
- 5 Saturation Current is the DC current at which the inductance drops approximate 30% from its value without current.
- 6 Operate temperature range: -25°C~+125°C (including self-temperature rise)
- 7 Storage temperature range (packaging conditions): -10°C~+40°C and RH 70%(MAX.)

### SHAPES AND DIMENSIONS

Unit: mm



A	B	C	D	E	F	a	b	c
2.5 $\pm$ 0.1	2.0 $\pm$ 0.1	1.0 Max.	1.5 $\pm$ 0.2	0.8 $\pm$ 0.2	0.8 $\pm$ 0.2	0.8	0.85	2.0

global solutions: local support™

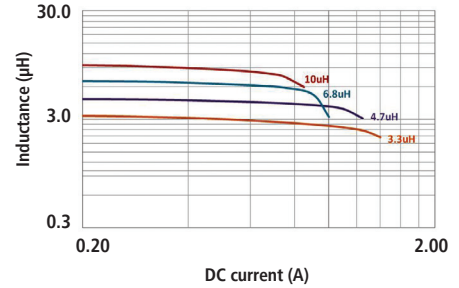
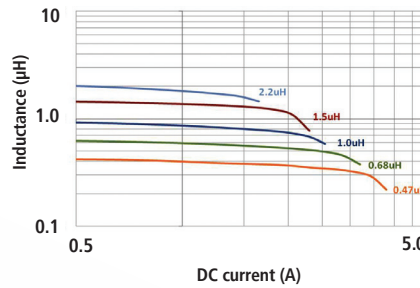
USA: +1.866.928.8181

Europe: +49.0.8031.2460.0

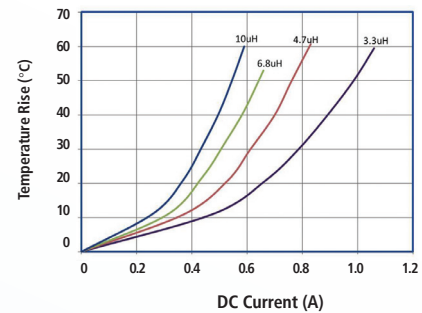
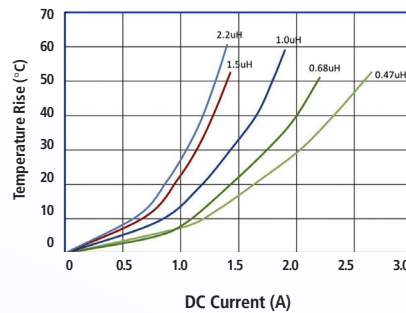
Asia: +86.755.2714.1166

**TYPICAL ELECTRICAL CHARACTERISTICS**

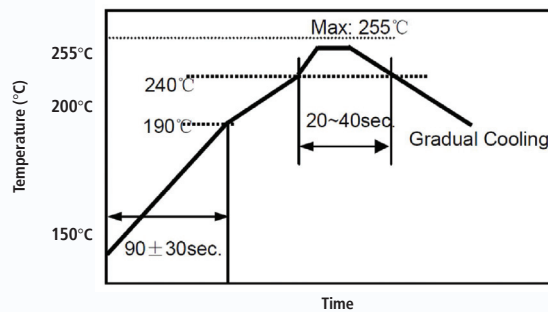
**Typical L vs Current**



**Characters of Temperature Rise**



**Temperature Profile of Reflow Soldering**



**ORDERING INFORMATION**

**PART NUMBER EXAMPLE**

T Y S	2 5 2 0 1 0	L	4 R 7	M	-	1 0
Product series code	Part size code	Low profile series	Inductance value code (i.e. 4R7: 4.7µH)	Tolerance % (i.e. M: ±20% · N: ±30%)		PB free code (i.e. 10: PB free)