



### FEATURES

- Magnetic shielded structure
- Low DCR and high efficiency
- Low profile and small size
- High reliability
- AEC-Q200 qualified

### 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

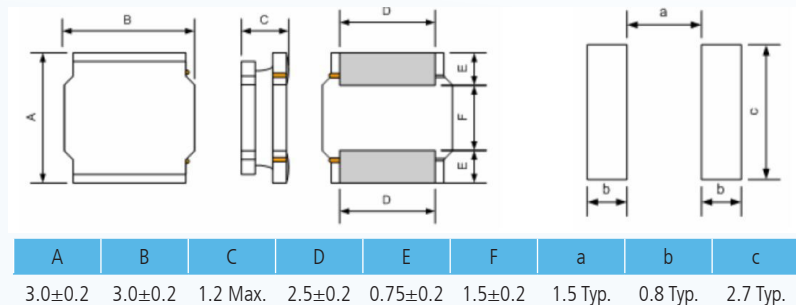
### ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (μH)	R <sub>dc</sub> (Ω) ±30%	SATURATION CURRENT <sup>3</sup> (A)	RMS CURRENT <sup>4</sup> (A)	SRF MHZ (REF)
TYS30121R0N-10	1.0	0.040	1.87	2.20	120
TYS30121R5N-10	1.5	0.045	1.62	2.01	110
TYS30122R2N-10	2.2	0.075	1.20	1.55	84
TYS30123R3M-10	3.3	0.100	1.05	1.36	64
TYS30124R7M-10	4.7	0.120	0.90	1.24	61
TYS30126R8M-10	6.8	0.190	0.75	0.98	61
TYS3012100M-10	10	0.265	0.60	0.83	42
TYS3012150M-10	15	0.460	0.45	0.71	27
TYS3012220M-10	22	0.645	0.42	0.53	23
TYS3012330M-10	33	0.875	0.36	0.46	18
TYS3012470M-10	47	1.450	0.27	0.35	14
TYS3012680M-10	68	1.670	0.24	0.33	12
TYS3012101M-10	100	2.860	0.21	0.25	12

- 1 Electrical specifications at 20°C.
- 2 Tolerance: M: ±20%, N: ±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: -40°C ~ +125°C (including self-temperature rise)
- 7 Storage temperature range (packaging conditions): -10°C ~ +40°C and RH 70%(MAX.)

### SHAPES AND DIMENSIONS

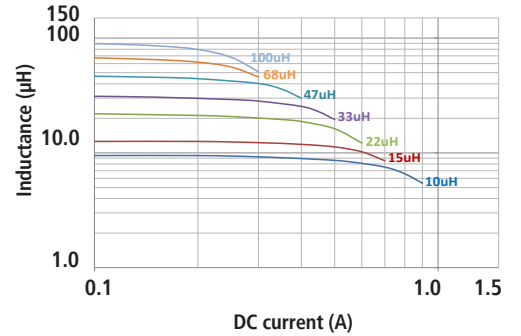
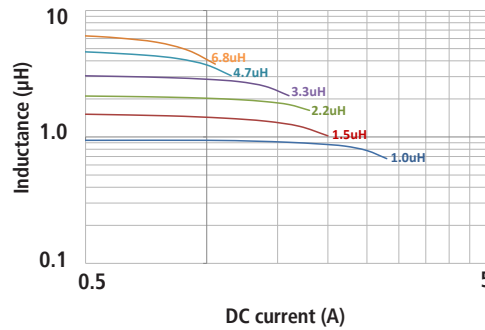
Unit: mm



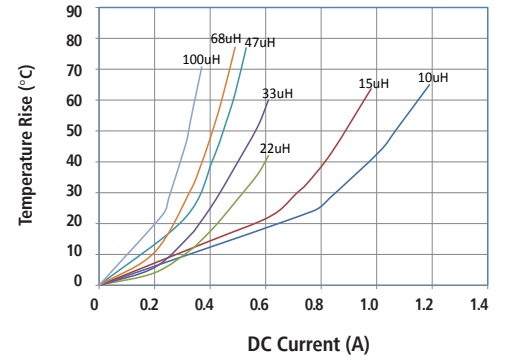
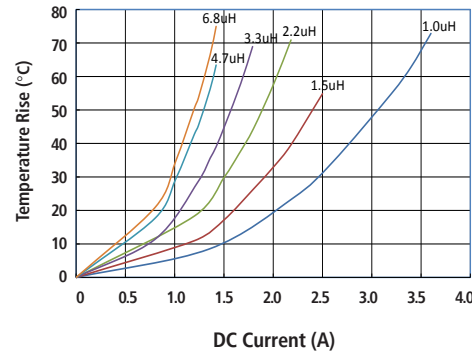
USA: +1.866.928.8181  
Europe: +49.0.8031.2460.0  
Asia: +86.755.2714.1166

**TYPICAL ELECTRICAL CHARACTERISTICS**

Typical L vs Current



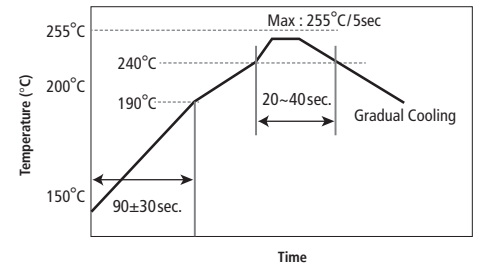
Characteristics of Temperature Rise



**PACKAGING INFORMATION**

- Standard Tape and Reel Quantity (PCS) = 2000
- Reel Size = 7 inches

Temperature Profile of Reflow Soldering



**ORDERING INFORMATION**

**PART NUMBER EXAMPLE**

T	Y	S	3	0	1	2	4	R	7	M	-	1	0
Product series code			Part size code			Inductance value code (i.e. 4R7: 4.7µH)			Tolerance % (i.e. M: ±20% · N: ±30%)		PB free code (i.e. 10: PB free)		

SIP-DS-TYS 3012 0413

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