



### 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

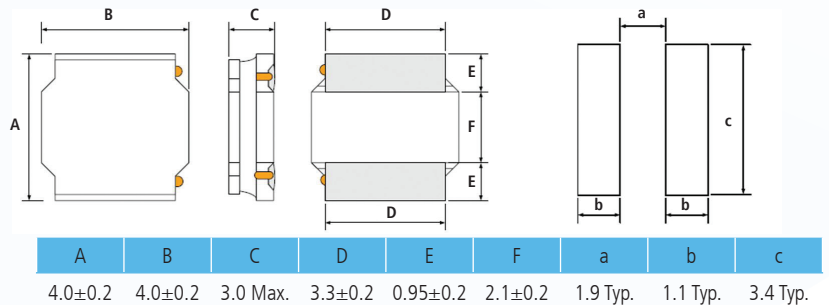
### ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (μH)	R <sub>dc</sub> (Ω) ±30%	SATURATION CURRENT <sup>2</sup> (A)	RMS CURRENT <sup>4</sup> (A)	SRF MHZ (REF)
TYS40301R0N-10	1	0.014	5.26	4.15	70
TYS40301R5N-10	1.5	0.020	4.84	3.34	62
TYS40302R2N-10	2.2	0.030	4.90	2.95	52
TYS40303R3M-10	3.3	0.040	3.30	2.40	38
TYS40304R7M-10	4.7	0.060	2.90	2.00	31
TYS40306R8M-10	6.8	0.090	2.75	1.60	24
TYS4030100M-10	10	0.100	1.95	1.50	21
TYS4030150M-10	15	0.190	1.65	1.11	16
TYS4030220M-10	22	0.225	1.30	1.00	10
TYS4030330M-10	33	0.330	1.10	0.84	10
TYS4030470M-10	47	0.490	0.95	0.72	8.4
TYS4030680M-10	68	0.868	0.72	0.52	7
TYS4030101M-10	100	1.150	0.60	0.45	5.6
TYS4030121M-10	120	1.350	0.55	0.42	5.4

- 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 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

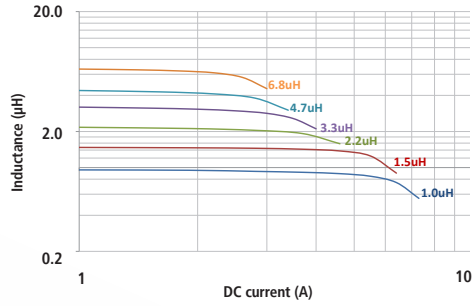
Unit: mm



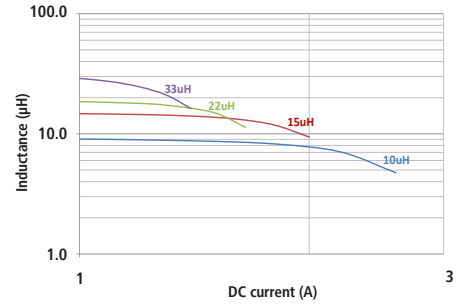
USA: +1.866.928.8181  
Europe: +49.0.8031.2460.0  
Asia: +86.755.2714.1166

**TYPICAL ELECTRICAL CHARACTERISTICS**

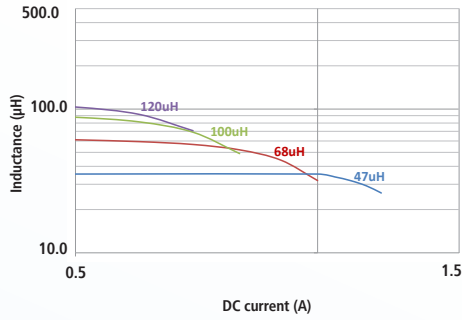
**Typical L vs Current**



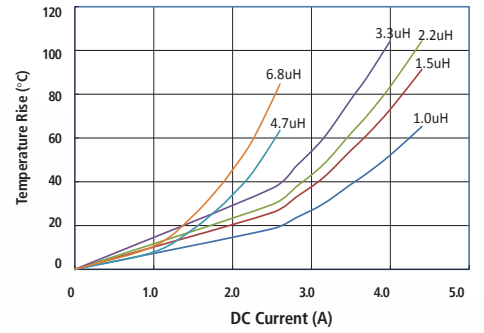
**Typical L vs Current**



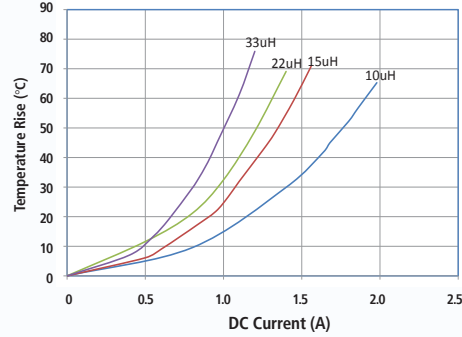
**Typical L vs Current**



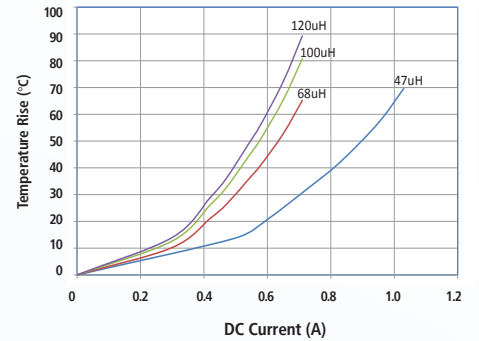
**Characters of Temperature Rise**



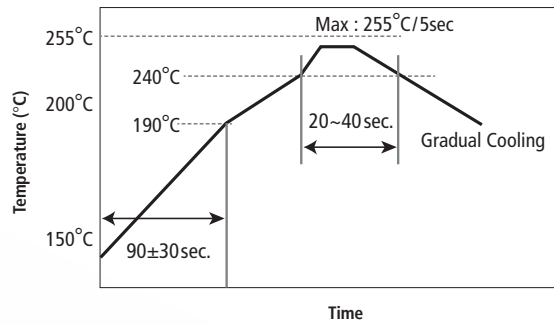
**Characters of Temperature Rise**



**Characters of Temperature Rise**



**Temperature Profile of Reflow Soldering**



**PACKAGING INFORMATION**

- Standard Tape and Reel Quantity (PCS) = 2000
- Reel Size = 13 inches

**ORDERING INFORMATION**

**PART NUMBER EXAMPLE**

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