



FEATURES  

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

APPLICATIONS

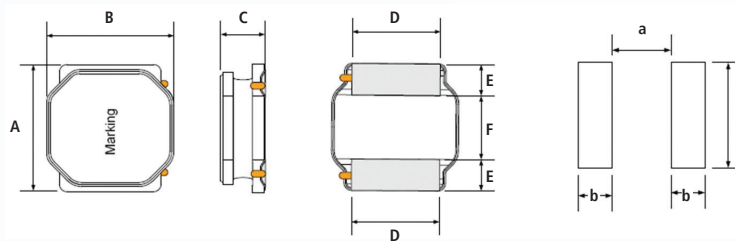
- DC-DC converters and power suppliers
- LCD TV's, Blu-ray and gaming consoles
- Tablets, notebooks, servers and printers
- Smart phones, GPS, set top box and base stations
- LED lighting
- Automotive

ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (μH)	R _{dc} (Ω) ±30%	SATURATION CURRENT ⁵ (A)	RMS CURRENT ⁴ (A)	SRF MHZ (REF)
TYS50201R0N-10	1	0.020	4.10	3.80	114
TYS50201R5N-10	1.5	0.026	4.10	3.20	68
TYS50202R2N-10	2.2	0.032	3.20	2.90	57
TYS50203R3N-10	3.3	0.043	2.55	2.50	46
TYS50203R6N-10	3.6	0.043	2.80	2.50	43
TYS50204R7M-10	4.7	0.057	2.50	2.20	37
TYS50206R8M-10	6.8	0.083	2.05	1.80	30
TYS5020100M-10	10	0.110	1.70	1.55	24
TYS5020150M-10	15	0.165	1.35	1.25	20
TYS5020220M-10	22	0.226	1.15	1.10	14

- 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: -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



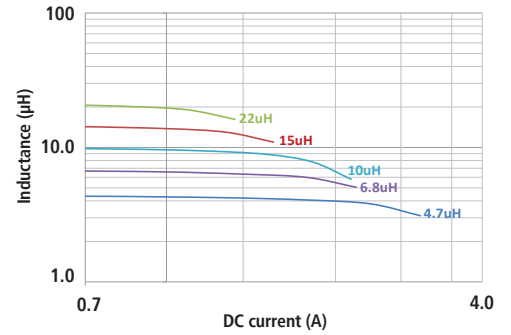
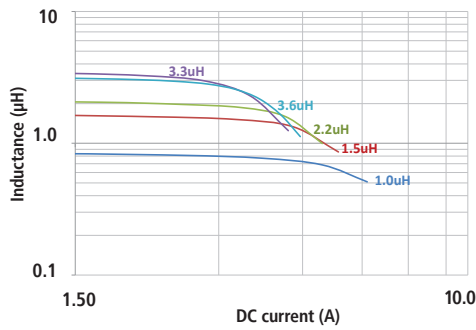
A	B	C Max.	D	E	F	a Typ.	b Typ.	c Typ.
5.0±0.2	5.0±0.2	2.0	4.0±0.2	1.25±0.2	2.5±0.2	2.3	1.4	4.2

global solutions: local support™

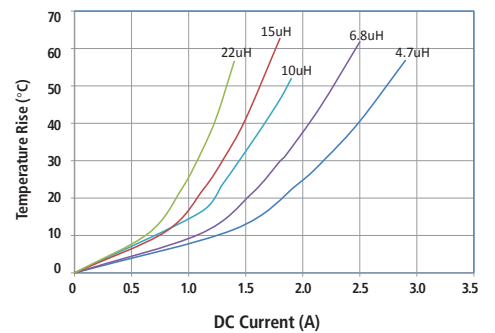
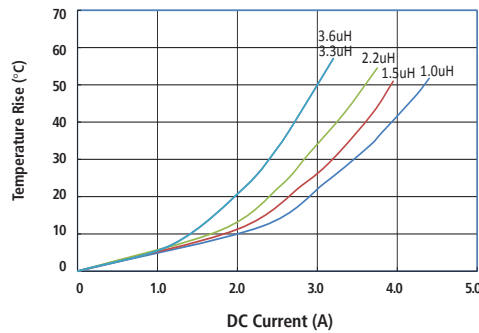
USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current



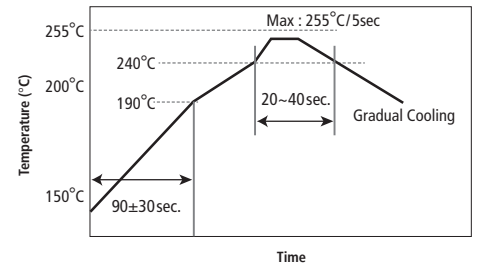
Characters of Temperature Rise



PACKAGING INFORMATION

- Standard Tape and Reel Quantity (PCS) = 2500
- Reel Size = 13 inches

Temperature Profile of Reflow Soldering



ORDERING INFORMATION

PART NUMBER EXAMPLE

T	Y	S	5	0	2	0	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 5020 1012

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