



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 (μ H)	Rdc (Ω) $\pm 30\%$	SATURATION CURRENT ⁵ (A)	RMS CURRENT ⁴ (A)	SRF MHZ (REF)
TYS40121R0N-10	1.0	0.050	2.61	1.65	120
TYS40122R2N-10	2.2	0.080	1.76	1.32	74
TYS40123R3N-10	3.3	0.110	1.72	1.12	60
TYS40124R7N-10	4.7	0.125	1.15	1.05	50
TYS40125R6N-10	5.6	0.140	1.00	1.00	42
TYS40126R8M-10	6.8	0.198	0.85	0.84	40
TYS4012100M-10	10	0.265	0.80	0.77	33
TYS4012150M-10	15	0.340	0.56	0.64	25
TYS4012220M-10	22	0.587	0.46	0.49	20
TYS4012330M-10	33	0.810	0.42	0.42	17
TYS4012470M-10	47	1.100	0.35	0.37	12
TYS4012680M-10	68	1.950	0.38	0.27	11
TYS4012101M-10	100	2.210	0.25	0.25	9.4

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.

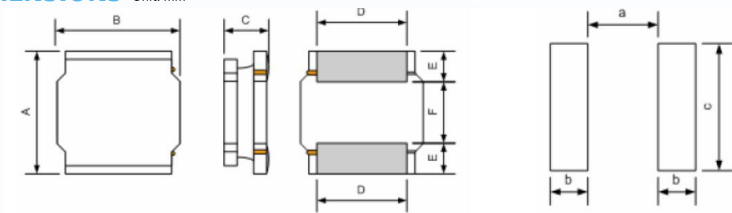
5 Saturation Current is the DC current at which the inductance drops approximate 30% from its value without current..

6 Operate temperature range: -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

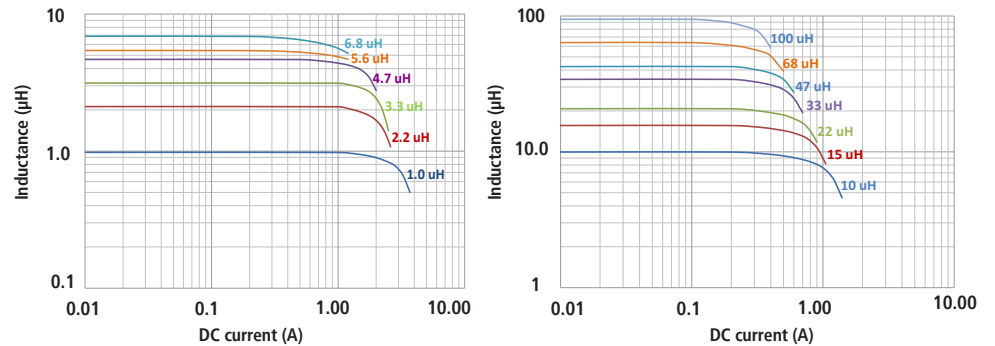


A	B	C	D	E	F	a	b	c
4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	1.2 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2	1.9 Typ.	1.1 Typ.	3.4 Typ.

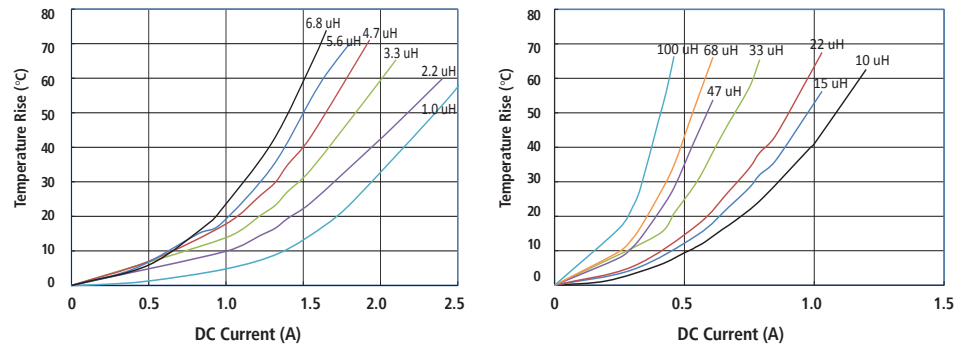
USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current



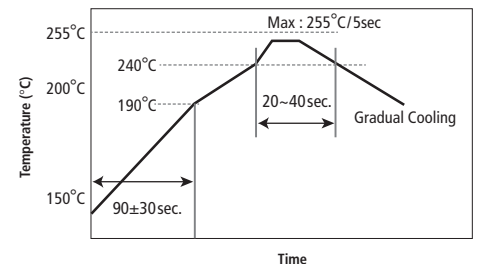
Characters of Temperature Rise



PACKAGING INFORMATION

- Standard Tape and Reel Quantity (PCS) = 4500
- Reel Size = 13 inches

Temperature Profile of Reflow Soldering



ORDERING INFORMATION

PART NUMBER EXAMPLE

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

SIP-DS-TYS 4012 0413

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