



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

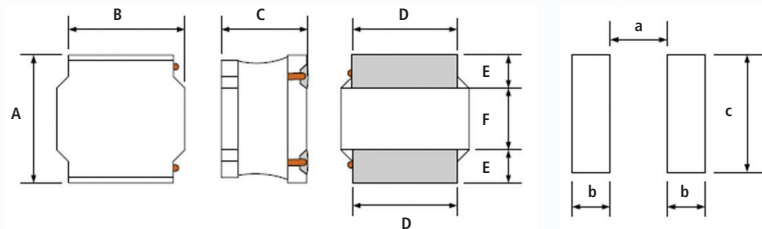
ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (μ H)	R _{dc} (Ω) $\pm 30\%$	SATURATION CURRENT ⁵ (A)	RMS CURRENT ⁴ (A)	SRF MHZ (REF)
TYS40181R0N-10	1.0	0.025	4.80	2.00	80
TYS40182R2M-10	2.2	0.045	2.70	1.65	52
TYS40183R3M-10	3.3	0.07	2.45	1.23	44
TYS40184R7M-10	4.7	0.09	1.70	1.20	34
TYS40186R8M-10	6.8	0.11	1.45	1.06	29
TYS4018100M-10	10	0.18	1.30	0.84	24
TYS4018150M-10	15	0.25	0.94	0.65	19
TYS4018220M-10	22	0.36	0.80	0.59	16
TYS4018330M-10	33	0.53	0.65	0.49	12
TYS4018470M-10	47	0.65	0.57	0.42	10
TYS4018680M-10	68	1.00	0.47	0.32	8.3
TYS4018101M-10	100	1.75	0.40	0.25	6.5
TYS4018151M-10	150	2.50	0.31	0.22	5.5
TYS4018221M-10	220	4.00	0.27	0.17	4.0

- 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

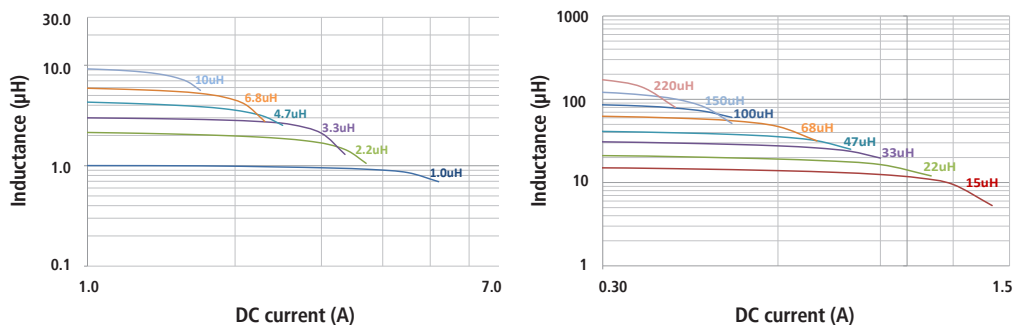


A	B	C	D	E	F	a	b	c
4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	1.8 max	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2	1.9 typ	1.1 typ	3.4 typ

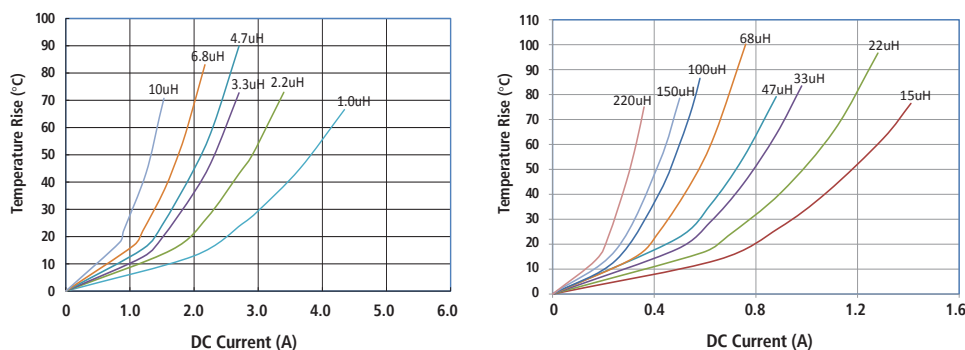
USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current



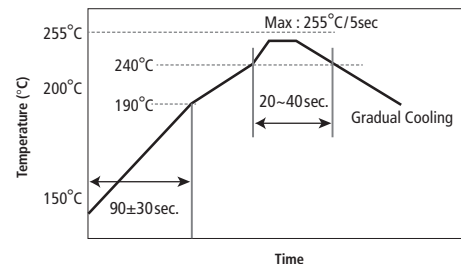
Characters of Temperature Rise



PACKAGING INFORMATION

- Standard Tape and Reel Quantity (PCS) = 3000
- Reel Size = 13 inches

Temperature Profile of Reflow Soldering



ORDERING INFORMATION

PART NUMBER EXAMPLE

T	Y	S	4	0	1	8	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 4018 0413

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