



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 ³ (A)	RMS CURRENT ⁴ (A)	SRF MHZ (REF)
TYS40201R0N-10	1.0	0.029	4.78	2.15	75
TYS40202R2N-10	2.2	0.040	3.40	1.85	49
TYS40203R3M-10	3.3	0.070	3.20	1.40	44
TYS40204R7M-10	4.7	0.075	2.35	1.34	42
TYS40206R8M-10	6.8	0.125	2.20	1.04	33
TYS4020100M-10	10	0.165	1.60	0.90	26
TYS4020150M-10	15	0.230	1.35	0.77	24
TYS4020220M-10	22	0.350	1.05	0.62	15
TYS4020330M-10	33	0.550	0.85	0.49	11
TYS4020470M-10	47	0.710	0.74	0.44	10
TYS4020680M-10	68	1.060	0.61	0.36	7.7
TYS4020101M-10	100	1.550	0.48	0.31	6.3

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

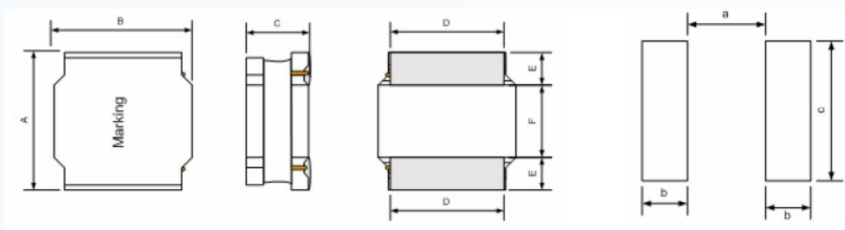
5 Saturation Current is the DC current at which the inductance drops approximate 30% from its value without current

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

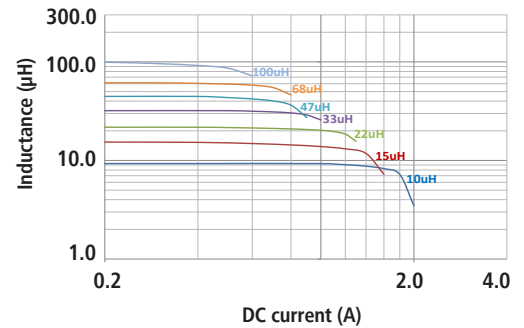
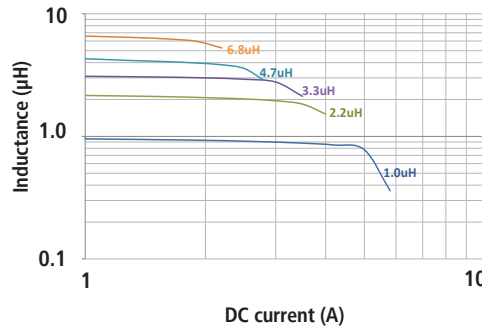


A	B	C	D	E	F	a	b	c
4.0 $\pm$ 0.2	4.0 $\pm$ 0.2	2.0 Max.	3.3 $\pm$ 0.2	0.95 $\pm$ 0.2	2.1 $\pm$ 0.2	1.9 Typ.	1.1 Typ.	3.7 Typ.

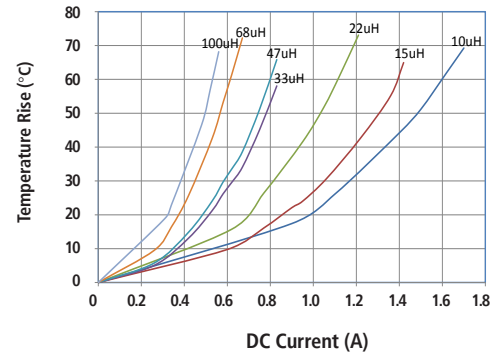
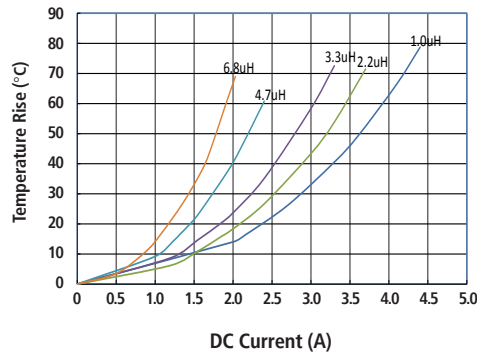
USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current



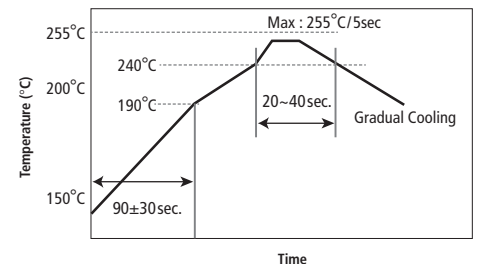
Characteristics of Temperature Rise



PACKAGING INFORMATION

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

Temperature Profile of Reflow Soldering



ORDERING INFORMATION

PART NUMBER EXAMPLE

T	Y	S	4	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 4020 0413

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