

SMD Power Inductor Series



FEATURES **▼**RoHS **P**6

- Magnetic shielded structure
- Low DCR and high efficiency
- Low profile and small size
- High reliability
- AEC-Q200 qualified

APPLICATIONS

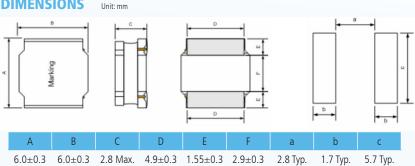
- DC-DC converters and power suppliers
- LCD TV's, Blu-ray and gaming consoles
- Tablets, notebooks, servers and printers
- Smart phones, GPS, set top box and base stations
- LED lighting
- Automotive

ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (µH)	Rdc (Ω)±30%	SATURATION CURRENT ⁵ (A)	RMS CURRENT ⁴ (A)	SRF MHZ (REF)
TYS60281R0N-10	1.0	0.010	5.75	5.20	70
TYS60281R5N-10	1.5	0.013	6.00	4.58	65
TYS60282R2N-10	2.2	0.020	5.10	3.75	48
TYS60283R3N-10	3.3	0.025	4.15	3.48	41
TYS60284R7N-10	4.7	0.030	3.00	3.08	35
TYS60286R8M-10	6.8	0.047	2.60	2.40	27
TYS6028100M-10	10	0.072	2.04	1.95	23
TYS6028150M-10	15	0.125	1.75	1.45	18
TYS6028220M-10	22	0.140	1.45	1.40	14
TYS6028330M-10	33	0.185	1.35	1.22	12
TYS6028470M-10	47	0.315	1.15	1.06	9.5
TYS6028680M-10	68	0.360	0.80	0.86	7.7
TYS6028101M-10	100	0.500	0.65	0.70	7.1

- Electrical specifications at 20°C.
- Tolerance: M: ±20%, N:±30%
- Inductance tested at 100 KHz, 1V RMS Current is defined based on temperature rise up to or less than 40°C from 20°C ambient
- Saturation Current is the DC current at which the inductance drops approximate 30% from its value without current
- Operate temperature range: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (including self-temperature rise) Storage temperature range (packaging conditions): $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$ and RH 70%(MAX.)

SHAPES AND DIMENSIONS



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

Smart Technology. Delivered.

TYS6028

SMD Power Inductor Series

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current 300.0 10 100.0 nductance (µH) Inductance (µH) 47uH 2.2uH 1.0 10.0 .15uH 1.0 0.1 10 0.1 10 1.0 DC current (A) DC current (A) **Characteristics of Temperature Rise** 90 80 100uH 15uH 80 70 68uH 6.8u / 1.5uH 33uH 22uH/ 1.0uH 70 Temperature Rise (°C) Temperature Rise (°C) 60 60 50 50 40 40 30 30 20 20 10 10

0

0.5

1.0

PACKAGING INFORMATION

• Standard Tape and Reel Quantity (PCS) = 2000

DC Current (A)

• Reel Size = 13 inches

0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0

Temperature Profile of Reflow Soldering

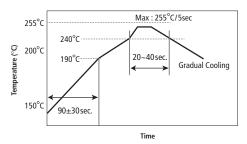
2.0

DC Current (A)

2.5

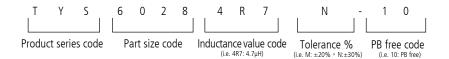
3.0

3.5



ORDERING INFORMATION

PART NUMBER EXAMPLE



SIP-DS-TYS 6028 0413