



FEATURES

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

APPLICATIONS

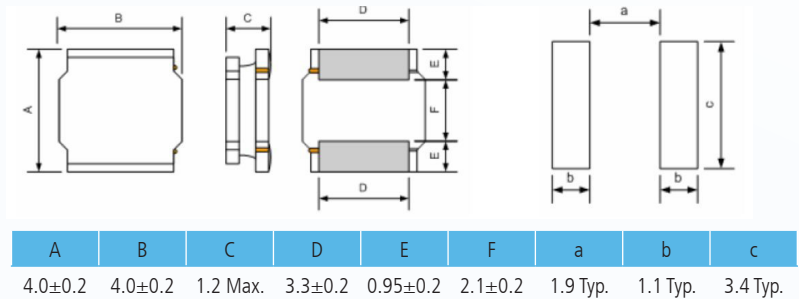
- DC-DC converters and power suppliers
- LCD TV's, Blu-ray and gaming consoles
- Tablets, notebooks, servers and printers
- Smart phones, GPS, set top box and base stations
- LED lighting
- Automotive

ELECTRICAL SPECIFICATIONS

| PART NO. | INDUCTANCE (μH) | R _{dc} (Ω) ±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: ±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: -40°C ~ +125°C (including self-temperature rise)
- 7 Storage temperature range (packaging conditions): -10°C ~ +40°C and RH 70%(MAX.)

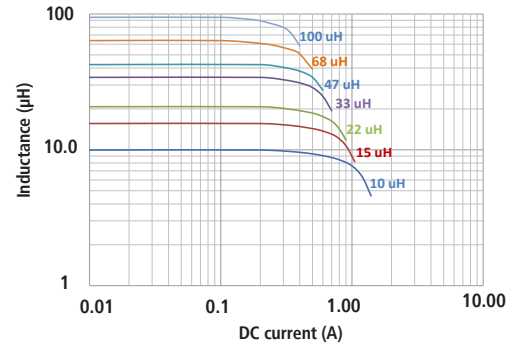
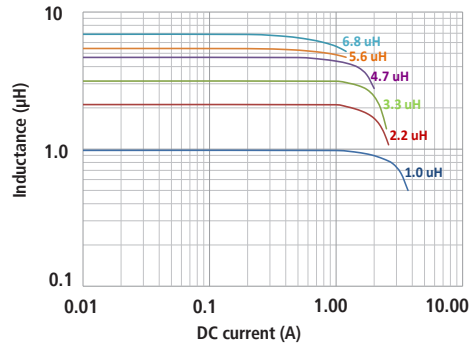
SHAPES AND DIMENSIONS Unit: mm



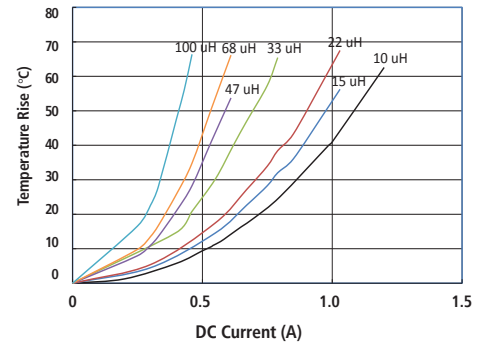
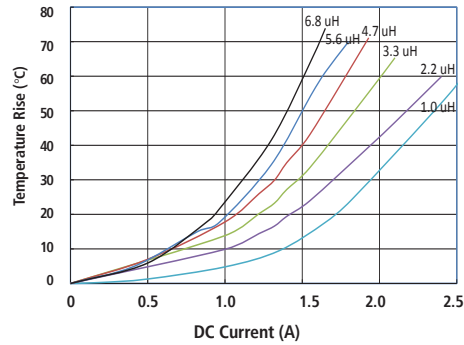
USA: +1.866.928.8181
Europe: +49.0.8031.2460.0
Asia: +86.755.2714.1166

TYPICAL ELECTRICAL CHARACTERISTICS

Typical L vs Current



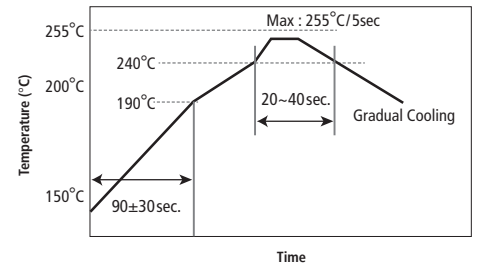
Characters of Temperature Rise



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: 4.7µH) | | | Tolerance % (i.e. M: ±20% • N: ±30%) | | PB free code (i.e. 10: PB free) | | |

SIP-DS-TYS 4012 0413

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[62892NL](#) [PE-92100NL](#) [PG0434.801NLT](#) [PG0936.113NLT](#) [PM06-2N7](#) [PM06-39NJ](#) [HC2LP-R47-R](#) [HC2-R47-R](#) [HC3-2R2-R](#) [HC8-1R2-R](#)