



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### FEATURES

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

### APPLICATIONS

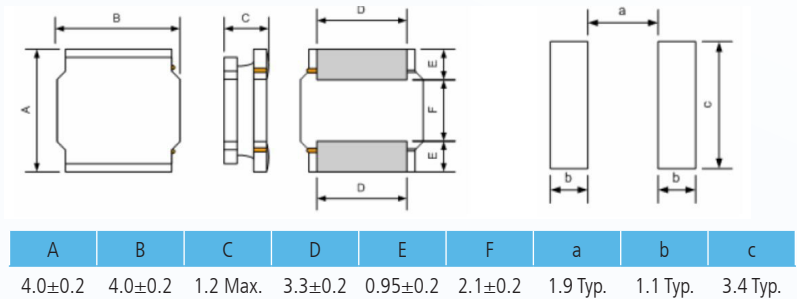
- DC-DC converters and power suppliers
- LCD TV's, Blu-ray and gaming consoles
- Tablets, notebooks, servers and printers
- Smart phones, GPS, set top box and base stations
- LED lighting
- Automotive

### ELECTRICAL SPECIFICATIONS

PART NO.	INDUCTANCE (μH)	R <sub>dc</sub> (Ω) ±30%	SATURATION CURRENT <sup>5</sup> (A)	RMS CURRENT <sup>4</sup> (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.)

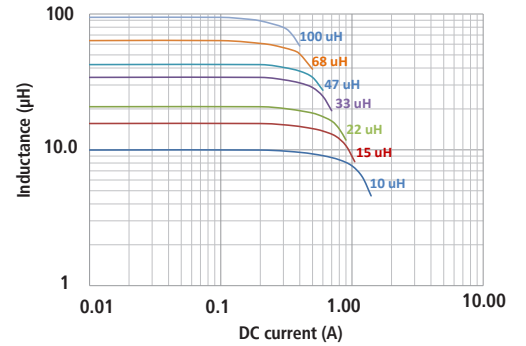
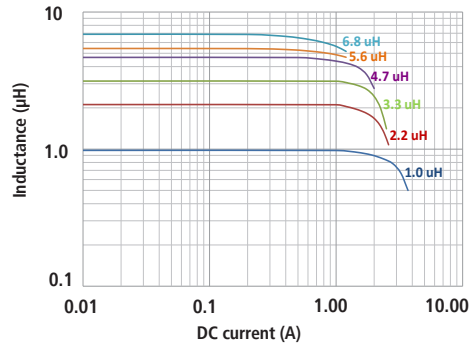
### SHAPES AND DIMENSIONS Unit: mm



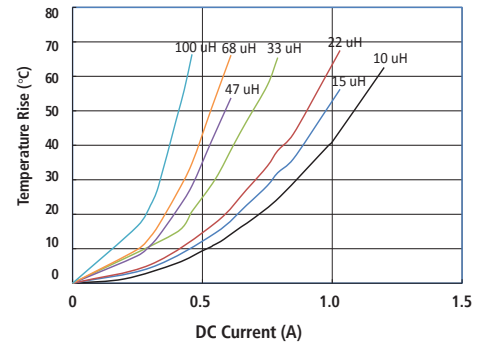
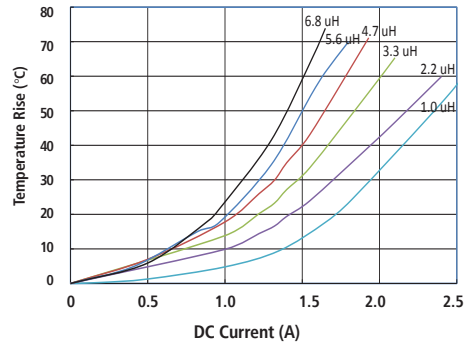
USA: +1.866.928.8181  
Europe: +49.0.8031.2460.0  
Asia: +86.755.2714.1166

**TYPICAL ELECTRICAL CHARACTERISTICS**

**Typical L vs Current**



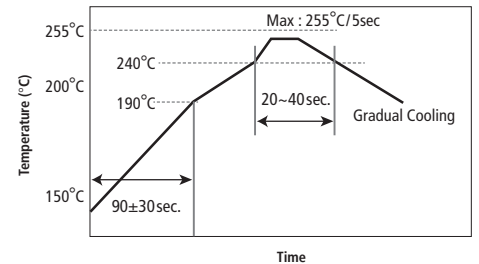
**Characters of Temperature Rise**



**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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