



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!



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Description

- 125°C maximum total temperature operation
- 3.1mm x 3.1mm x 1.4mm shielded drum core
- Ferrite core material
- Inductance range from 1.0uH to 330uH
- Current range from 2.59 Amps to 0.106 Amps
- Frequency range up to 4MHz



Applications

- Cellular phones, Digital cameras, CD players, PDA's
- Small LCD displays
- LED driver and LED flash circuits
- Hard disk drives
- Backlighting
- EL panel

Environmental Data

- Storage temperature range: -40°C to +125°C
- Operating temperature range: -40°C to +125°C (range is application specific)
- Solder reflow temperature: +260°C max. for 10 seconds maximum



Packaging

- Supplied in tape and reel packaging, 4100 per reel

Part Number	Rated Inductance (μH)	OCL (1) (μH)	Part Marking Designator	I _{rms} (2) Amperes	I _{sat} (3) Amperes	DCR (Ω) typ. @ 20°C	K-factor (4)
SD3114-1R0-R	1.0	1.16+/-30%	A	1.60	2.35	0.058	98
SD3114-1R5-R	1.5	1.44+/-30%	B	1.39	2.11	0.077	79
SD3114-2R2-R	2.2	2.12+/-30%	C	1.17	1.74	0.110	67
SD3114-3R3-R	3.3	3.36+/-30%	D	0.95	1.38	0.167	54
SD3114-4R7-R	4.7	4.90+/-30%	E	0.77	1.14	0.251	45
SD3114-6R8-R	6.8	6.72+/-30%	F	0.71	0.98	0.296	37
SD3114-8R2-R	8.2	8.10+/-30%	G	0.68	0.89	0.329	34
SD3114-100-R	10.0	10.4+/-30%	H	0.57	0.78	0.458	30
SD3114-150-R	15.0	14.9+/-20%	I	0.48	0.66	0.650	25
SD3114-220-R	22.0	22.5+/-20%	J	0.43	0.53	0.821	21
SD3114-330-R	33.0	33.1+/-20%	K	0.35	0.44	1.23	17
SD3114-470-R	47.0	47.5+/-20%	L	0.280	0.37	1.86	14
SD3114-680-R	68.0	68.6+/-20%	M	0.239	0.305	2.62	12
SD3114-820-R	82.0	81.8+/-20%	N	0.227	0.280	2.91	11
SD3114-101-R	100.0	101.1+/-20%	O	0.213	0.252	3.30	10
SD3114-151-R	150.0	149.0+/-20%	P	0.172	0.207	5.07	8
SD3114-221-R	220.0	220.9+/-20%	Q	0.140	0.170	7.67	6
SD3114-331-R	330.0	329.5+/-20%	R	0.113	0.139	11.78	5

(1) Open Circuit Inductance Test Parameters: 100kHz, 0.1V, 0.0Adc.

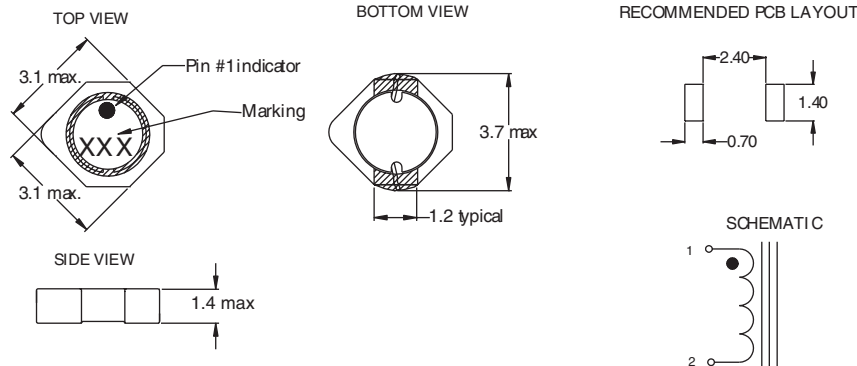
(2) I_{rms}: DC current for an approximate DT of 40°C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125°C under worst case operating conditions verified in the end application.

(3) I_{sat} Amperes peak for approximately 30% rolloff (@20°C)

(4) K-factor: Used to determine B_{p-p} for core loss (see graph).

B_{p-p} = K*L*ΔI, B_{p-p}(mT), K: (K factor from table), L: (Inductance in uH), ΔI (Peak to peak ripple current in Amps).

Mechanical Diagrams

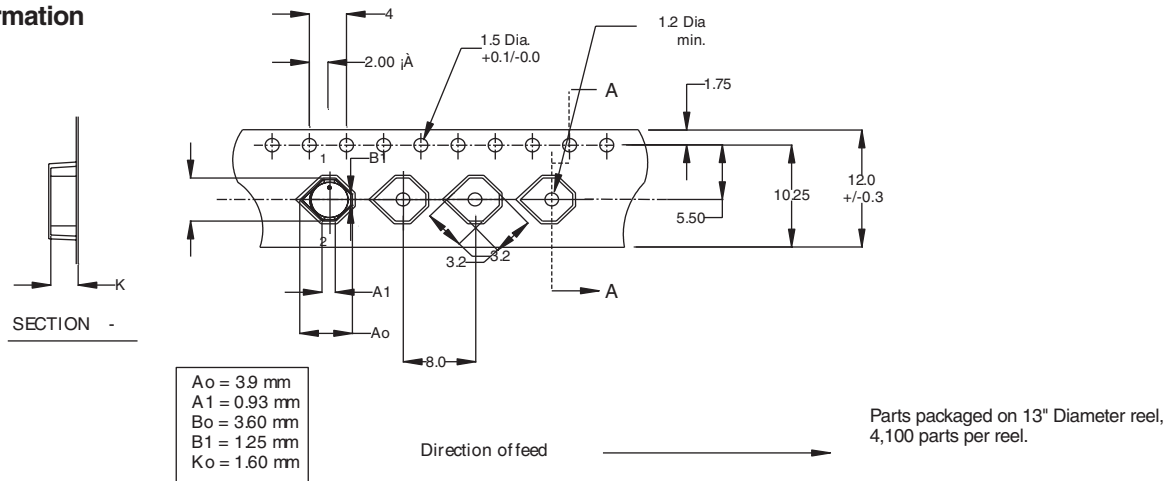


Dimensions are in millimeters.

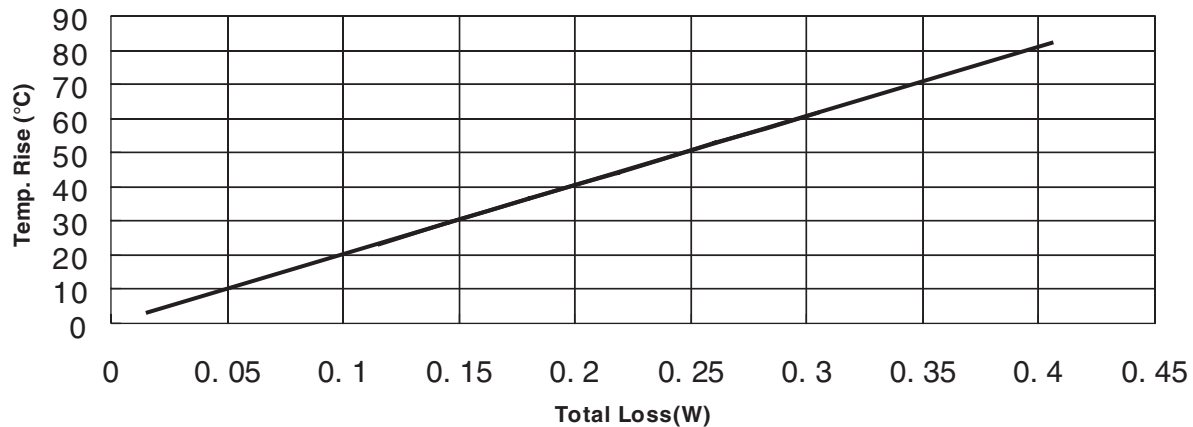
Part Marking:

3 Digit Marking: (1st digit: Indicates inductance value per letter in Part Marking Designator); (2nd digit: Bi-weekly production date code); (3rd digit: Last digit of the year produced).

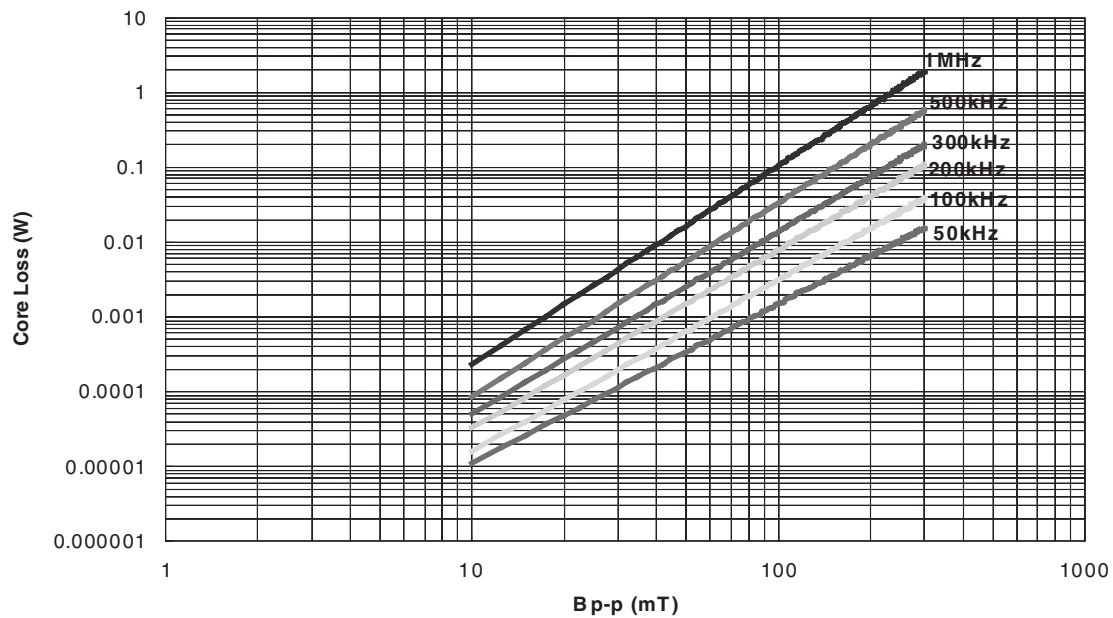
Packaging Information



DC Current vs. Temperature



Core Loss



Inductance Characteristics

OCL vs. Isat

