

Description

- 125°C maximum total temperature operation
- 3.1mm x 3.1mm x 1.2mm shielded drum core
- Ferrite core material
- Inductance range from 1.0uH to 220uH
- Current range from 1.65 Amps to 0.113 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 (2) typ. @ 20°C	K-factor (4)
SD3112-1R0-R	1.0	1.11+/-30%	A	1.30	1.65	0.069	135
SD3112-1R5-R	1.5	1.70+/-30%	B	1.16	1.35	0.099	110
SD3112-2R2-R	2.2	2.4+/-30%	C	0.97	1.12	0.140	92
SD3112-3R3-R	3.3	3.24+/-30%	D	0.90	0.97	0.165	79
SD3112-4R7-R	4.7	4.72+/-30%	E	0.74	0.80	0.246	66
SD3112-6R8-R	6.8	6.47+/-30%	F	0.68	0.68	0.291	56
SD3112-8R2-R	8.2	8.50+/-30%	G	0.57	0.60	0.408	49
SD3112-10R-R	10.0	10.01+/-30%	H	0.55	0.55	0.446	45
SD3112-15R-R	15.0	15.28+/-20%	I	0.45	0.44	0.654	37
SD3112-22R-R	22.0	21.66+/-20%	J	0.37	0.37	0.953	31
SD3112-33R-R	33.0	33.30+/-20%	K	0.30	0.30	1.48	25
SD3112-47R-R	47.0	47.44+/-20%	L	0.270	0.25	1.85	21
SD3112-68R-R	68.0	68.10+/-20%	M	0.228	0.211	2.56	17
SD3112-82R-R	82.0	83.19+/-20%	N	0.213	0.190	2.93	16
SD3112-101R-R	100.0	99.8+/-20%	O	0.184	0.174	3.95	14
SD3112-151R-R	150.0	149.4+/-20%	P	0.149	0.142	6.01	12
SD3112-221R-R	220.0	219.9+/-20%	Q	0.121	0.117	9.12	10

(1) Open Circuit Inductance Test Parameters: 100kHz, 0.1V, 0.0A_{dc}.

(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.

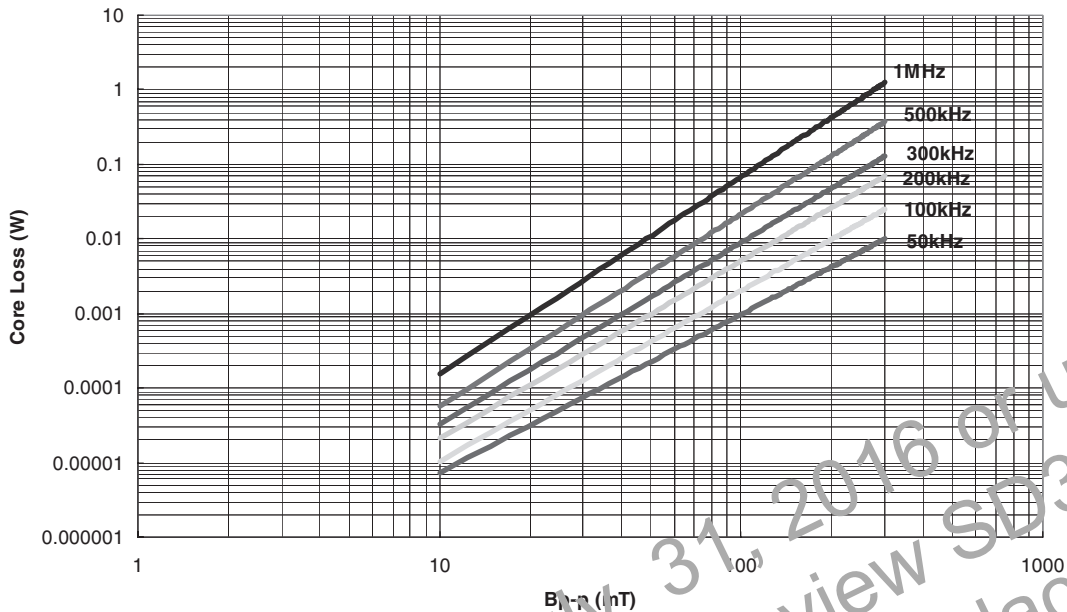
(3) I_{sat} Amperes peak for approximately 30% rolloff (@20°C)

(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).

Discontinued, Effective July 31, 2016 or until inventory is depleted. Please review SD3114 data sheet (A175) as an alternate replacement.

Core Loss



Inductance Characteristics

OCL vs Isat

