

COOPER Bussmann

SD3118 Series Low Profile Power Inductors

Description

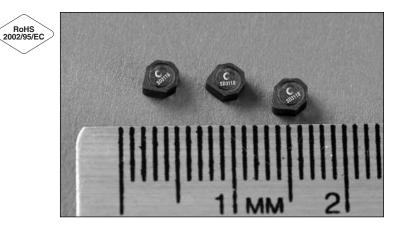
- 125°C maximum total temperature operation
- 3.1mm x 3.1mm x 1.8mm shielded drum core
- Ferrite core material
- Inductance range from 1.0uH to 1000uH
- Current range from 2.94 Amps to 0.083 Amps
- Frequency range up to 4MHz

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	Irms (2) Amperes	Isat (3) Amperes	DCR (Ω) typ. @ 20°C	K-factor (4)
SD3118-1R0-R	1.0	1.04+/-30%	А	2.01	3.07	0.041	84
SD3118-1R5-R	1.5	1.44+/-30%	В	1.81	2.42	0.051	68
SD3118-2R2-R	2.2	2.12+/-30%	С	1.50	2.00	0.074	57
SD3118-3R3-R	3.3	3.36+/-30%	D	1.22	1.59	0.113	56
SD3118-4R7-R	4.7	4.90+/-30%	E	1.02	1.31	0.162	39
SD3118-6R8-R	6.8	6.72+/-30%	F	0.85	1.12	0.232	32
SD3118-8R2-R	8.2	8.10+/-30%	G	0.81	1.02	0.257	29
SD3118-100-R	10.0	10.4+/-30%	Н	0.75	0.90	0.295	26
SD3118-150-R	15.0	14.9+/-20%		0.62	0.75	0.440	21
SD3118-220-R	22.0	22.5+/-20%	J	0.50	0.61	0.676	18
SD3118-330-R	33.0	33.1+/-20%	K	0.41	0.51	0.986	14
SD3118-470-R	47.0	47.5+/-20%	L	0.370	0.42	1.21	12
SD3118-221-R	220.0	221.9+/-20%	М	0.182	0.177	4.77	6
SD3118-331-R	330.0	329.9+/-20%	Ν	0.146	0.145	7.40	5
SD3118-471-R	470.0	470.1+/-20%	0	0.131	0.122	9.20	4
SD3118-681-R	680.0	680.3+/-20%	Р	0.107	0.101	13.70	3
SD3118-102-R	1000.0	999.4+/-20%	Q	0.087	0.083	20.90	3
SD3118-102-R	1000.0	999.4+/-20%	Q	0.087	0.083	20.90	

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

(2) Irms: 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.

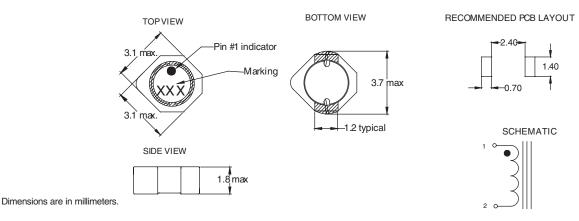
(3) Isat Amperes peak for approximately 30% rolloff (@20°C)
(4) K-factor: Used to determine B p-p for core loss (see graph). B p-p = K*L*∆I, B p-p(mT), K: (K factor from table), L: (Inductance in uH), ΔI (Peak to peak ripple current in Amps).



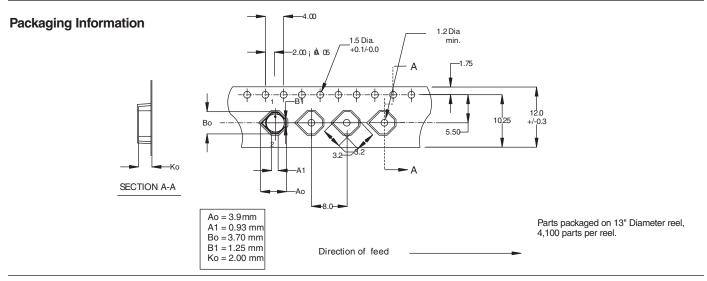
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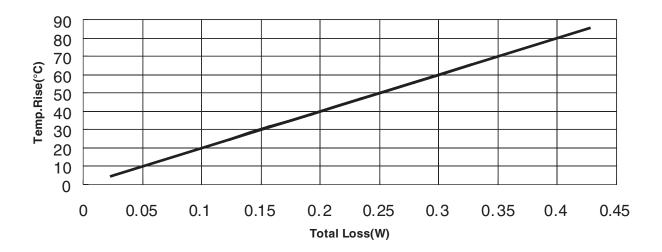
Mechanical Diagrams



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).



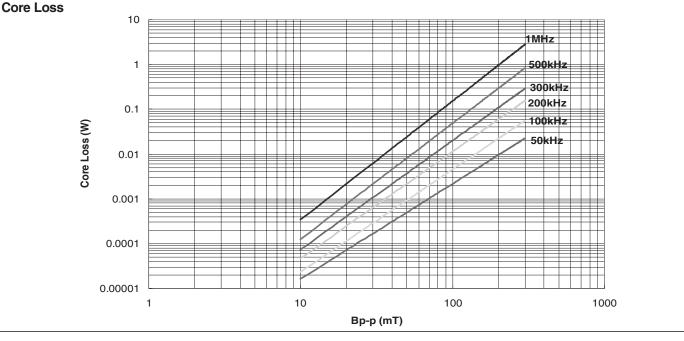
DC Current vs. Temperature



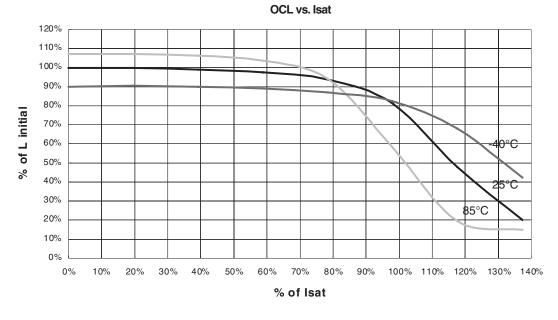


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Inductance Characteristics





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