

Description

- Low profile 4.0 mm max
- Inductance range from 1.5 μH to 330 μH
- Current range from 10.0 to 0.70 Amps
- Ferrite Shielded, low EMI
- Ferrite core material

Applications

- Computer and portable power devices
- LCD panels, DVD players
- DC-DC converters
- Buck, boost, forward, and resonant converters
- Noise filtering and filter chokes

Environmental Data

- Storage temperature range: -40°C to $+125^{\circ}\text{C}$
- Operating ambient temperature range: -40°C to $+85^{\circ}\text{C}$ (range is application specific)
- Solder reflow temperature: $+260^{\circ}\text{C}$ max. for 10 seconds



Packaging

- Supplied in tape and reel packaging, 600 parts per 13" reel

Part Number	Rated Inductance (μH)	OCL nominal (1) $\pm 30\%$ (μH)	I _{rms} (2) Amperes	I _{sat} (3) Amperes	DCR ($\text{m}\Omega$) Max. @ 20°C
CD1-1R5-R	1.5	1.5	8.30	10.00	8.1
CD1-2R5-R	2.5	2.5	7.30	7.50	10.0
CD1-3R8-R	3.8	3.8	6.55	6.00	13.0
CD1-5R2-R	5.2	5.2	5.05	5.50	22.0
CD1-7R0-R	7.0	7.0	4.55	4.80	27.0
CD1-100-R	10.0	10.0	4.00	4.40	35.0
CD1-150-R	15.0	15.0	3.35	3.60	50.0
CD1-220-R	22.0	22.0	2.77	2.90	73.0
CD1-330-R	33.0	33.0	2.45	2.30	93.0
CD1-470-R	47.0	47.0	2.09	2.10	128
CD1-680-R	68.0	68.0	1.62	1.50	213
CD1-820-R	82.0	82.0	1.50	1.45	256
CD1-101-R	100	100	1.36	1.35	304
CD1-151-R	150	150	1.05	1.15	506
CD1-221-R	220	220	0.86	0.92	756
CD1-331-R	330	330	0.72	0.70	1090

1) Test Parameters: 100kHz, 0.25 V_{rms}

2) I_{rms} Amperes for approximately ΔT of 40°C above 85°C ambient

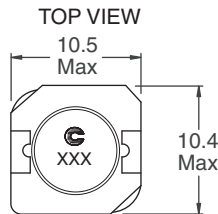
3) I_{sat} Amperes Peak for 35% max. rolloff (@ 20°C)

Part number definition:

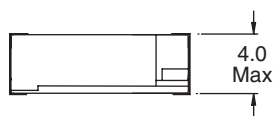
First 3 characters = Product code and size.

Last 3 characters = Inductance in μH , R = decimal point. If no R is present, third character = # of zeros. - R suffix indicated RoHS compliant

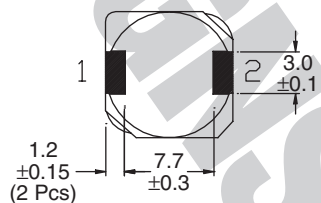
Mechanical Diagrams



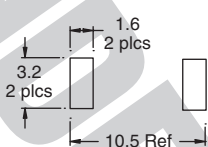
SIDE VIEW



BOTTOM VIEW



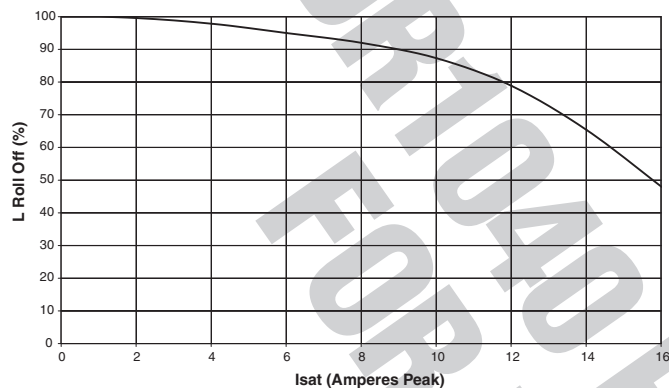
RECOMMENDED PCB LAYOUT



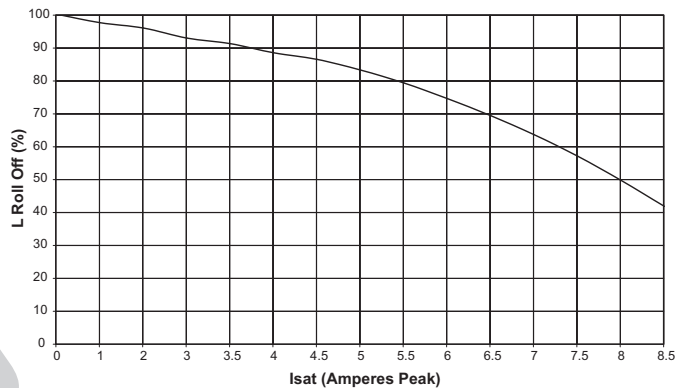
Dimensions in Millimeters.

Inductance Characteristics

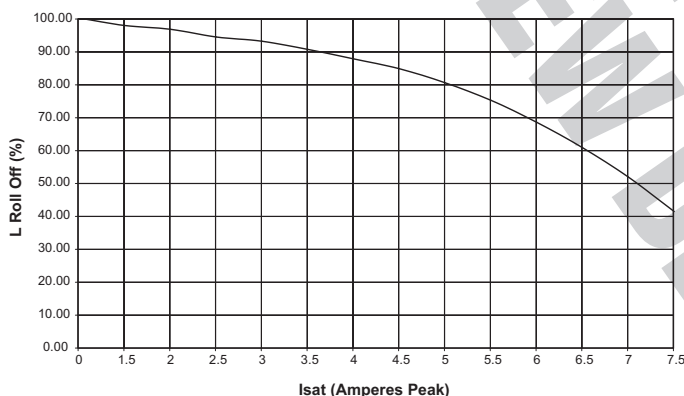
Typical Inductance vs Idc
CD1-1R5



Typical Inductance vs Idc
CD1-5R2



Typical Inductance vs Idc
CD1-7R0



Typical Inductance vs Idc
CD1-100

