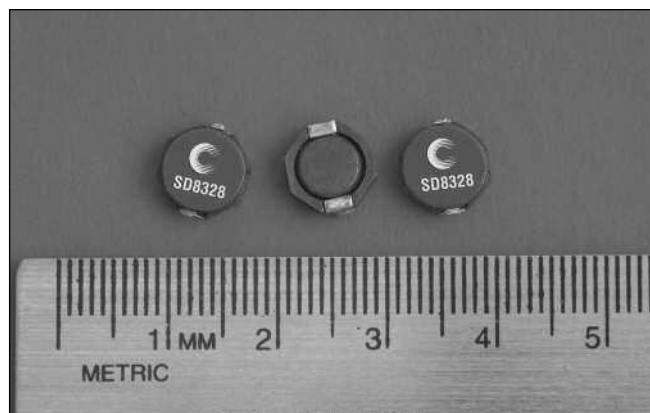


### Description

- 125°C maximum temperature operation
- Low profile surface mount inductor
- 8.3mm x 9.5mm x 3.0mm shielded drum core
- Ferrite core material
- Inductance range from 2.7µH to 100µH
- Current range from 6.6 Amps to 0.8 Amps
- Frequency range up to 1MHz



### Applications

- Buck or Boost inductor
- Noise filtering output filter chokes
- Notebook power/display
- LCD Monitors/Displays/Televisions
- Battery chargers, LCD bias supplies
- Battery and Industrial power systems
- Computer, DVD players
- Portable power devices, DC-DC converters

### 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, 1280 per reel

| Part Number  | Rated Inductance (µH) | OCL (1) µH±30% | Irms(2) Amperes | Isat (3) Amperes | DCR (Ω) mΩ @20°C (Typical) | DCR (Ω) mΩ @20°C (Maximum) | K-factor (4) |
|--------------|-----------------------|----------------|-----------------|------------------|----------------------------|----------------------------|--------------|
| SD8328-2R5-R | 2.5                   | 2.7            | 6.6             | 4.5              | 12                         | 15.6                       | 43           |
| SD8328-3R3-R | 3.3                   | 3.4            | 6.1             | 4.0              | 14                         | 18.0                       | 33           |
| SD8328-4R7-R | 4.7                   | 5.0            | 4.5             | 3.6              | 19                         | 24.7                       | 23           |
| SD8328-7R3-R | 7.3                   | 7.6            | 3.4             | 2.9              | 30                         | 39                         | 15           |
| SD8328-100-R | 10                    | 9.1            | 3.3             | 2.6              | 36                         | 45                         | 11           |
| SD8328-150-R | 15                    | 14.5           | 2.35            | 2.0              | 53                         | 69                         | 7.2          |
| SD8328-220-R | 22                    | 21.1           | 1.85            | 1.7              | 76                         | 99                         | 4.9          |
| SD8328-330-R | 33                    | 31.9           | 1.45            | 1.4              | 120                        | 156                        | 3.3          |
| SD8328-470-R | 47                    | 44.9           | 1.30            | 1.2              | 150                        | 194                        | 2.3          |
| SD8328-680-R | 68                    | 64.2           | 0.98            | 1.0              | 220                        | 286                        | 1.6          |
| SD8328-101-R | 100                   | 97.0           | 0.80            | 0.8              | 330                        | 430                        | 1.1          |

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

(2) I rms: DC current for an approximate ΔT 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 35% rolloff (@25°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 µH), ΔI (Peak to peak ripple current in Amps).

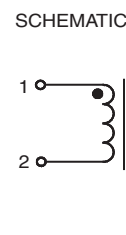
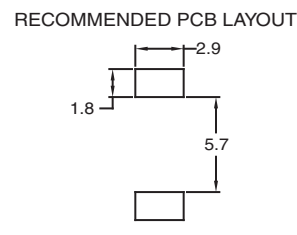
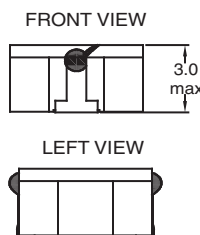
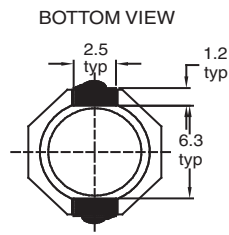
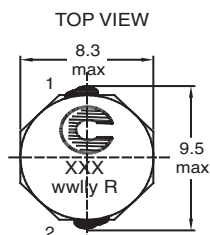
(5) Part Number Definition: SD8328-xxx-R

SD8328 = Product code and size; -xxx = Inductance value in µH;

R = decimal point; If no R is present, third character = # of zeros.

-R suffix = RoHS compliant

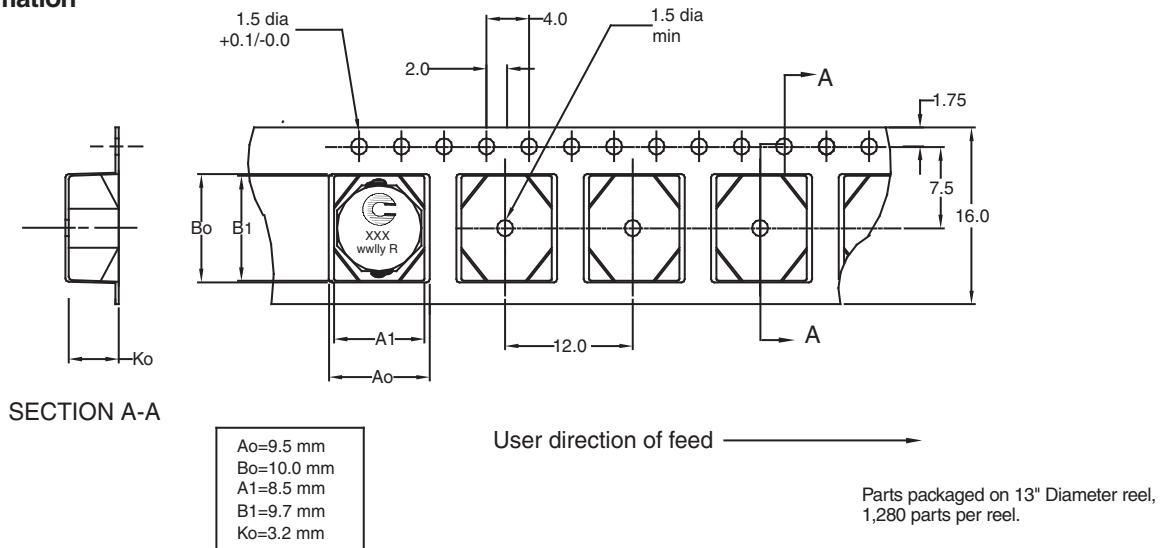
### Mechanical Diagrams



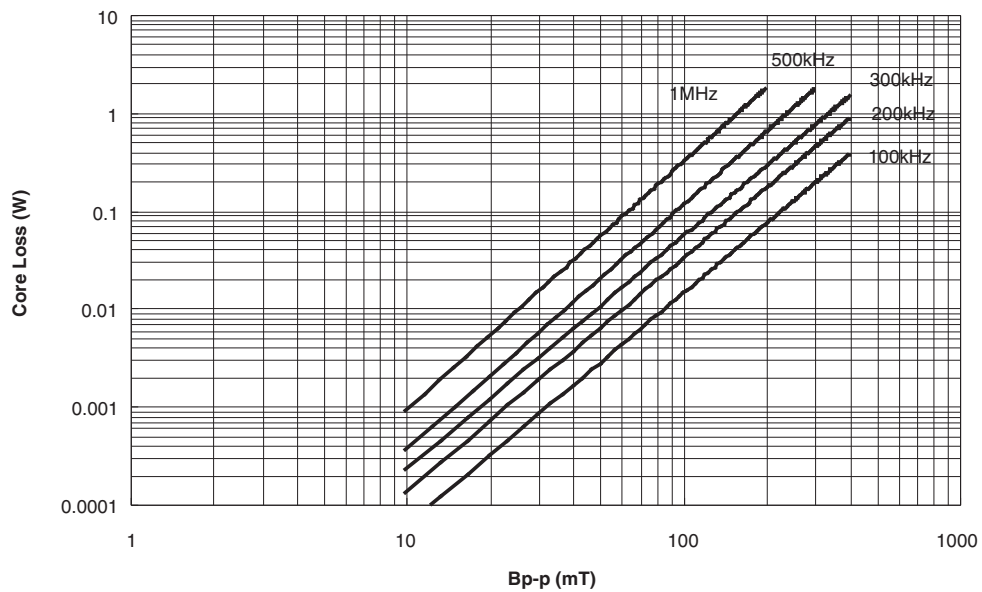
Dimensions are in millimeters.

xxx = Inductance value in µH. R = decimal point. If no R is present third character = # of zeros. wwlyy = Date code, R = Revision level.

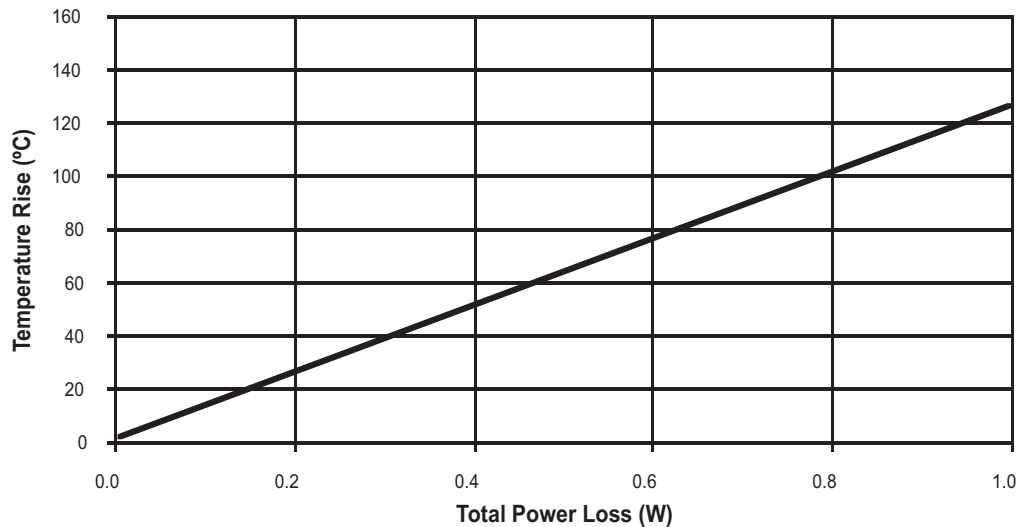
## Packaging Information



## Core Loss

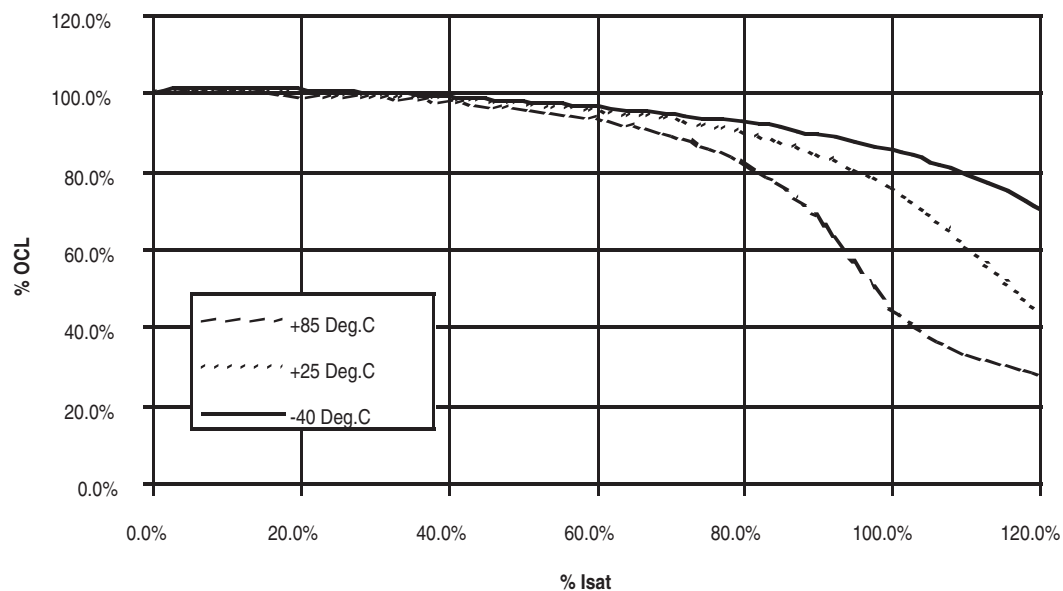


### Temperature Rise vs. Loss



### Inductance Characteristics

OCL Vs. Isat



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