

**Description**

- Miniature size and rugged construction
- Designed for high shock environments
- Suited for IR and vapor reflow solder
- Frequency range 1kHz to 2MHz
- RoHS compliant (-R option)

**Applications**

- Computer, pager and battery powered equipment

**Environmental Data**

- Storage temperature range: -40°C to +125°C
- Operating ambient temperature range: -40°C to +85°C range is application specific. Temperature rise is approximately 40°C at rated RMS current. Maximum operating temperature is 125°C including ambient.
- Infrared reflow temperature: +240°C for 30 seconds max.



**Packaging**

- Supplied in tape and reel packaging, 2,500 per reel

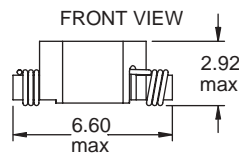
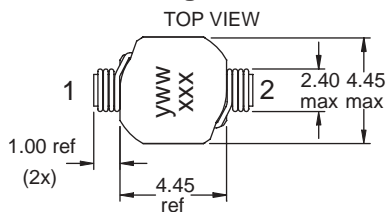
| Part Number | Inductance $\mu\text{H}$ (Rated) | OCL (1) $\mu\text{H} \pm 20\%$ | I <sub>rms</sub> (2) Amperes | I <sub>sat</sub> (3) Amperes | DCR (4) Ohms (Max) |
|-------------|----------------------------------|--------------------------------|------------------------------|------------------------------|--------------------|
| UP0.4C-1R0  | 1.0                              | 1.16                           | 2.88                         | 3.33                         | 0.030              |
| UP0.4C-1R5  | 1.5                              | 1.49                           | 2.58                         | 2.94                         | 0.034              |
| UP0.4C-2R2  | 2.2                              | 2.27                           | 2.15                         | 2.38                         | 0.050              |
| UP0.4C-3R3  | 3.3                              | 3.22                           | 1.89                         | 2.00                         | 0.060              |
| UP0.4C-4R7  | 4.7                              | 4.95                           | 1.55                         | 1.61                         | 0.088              |
| UP0.4C-6R8  | 6.8                              | 7.06                           | 1.30                         | 1.35                         | 0.128              |
| UP0.4C-100  | 10                               | 9.53                           | 1.16                         | 1.16                         | 0.156              |
| UP0.4C-150  | 15                               | 14.5                           | 0.95                         | 0.94                         | 0.250              |
| UP0.4C-220  | 22                               | 21.8                           | 0.76                         | 0.77                         | 0.360              |
| UP0.4C-270  | 27                               | 27.5                           | 0.69                         | 0.68                         | 0.480              |
| UP0.4C-330  | 33                               | 32.2                           | 0.64                         | 0.63                         | 0.560              |
| UP0.4C-390  | 39                               | 39.0                           | 0.59                         | 0.57                         | 0.650              |
| UP0.4C-470  | 47                               | 46.5                           | 0.53                         | 0.53                         | 0.820              |
| UP0.4C-680  | 68                               | 68.2                           | 0.45                         | 0.43                         | 1.10               |
| UP0.4C-101  | 100                              | 102.5                          | 0.37                         | 0.35                         | 1.58               |

1) Open Circuit Inductance Test Parameters: 100kHz, 0.250 V<sub>rms</sub>, 0.0 A<sub>dc</sub>  
 2) RMS current, delta temp. of 40°C ambient temperature of 85°C

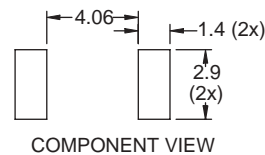
3) Peak current for approximately 30% roll-off @ 20°C  
 4) Values @ 20°C

| OPTION CODE |                        |
|-------------|------------------------|
| Option Code | Description            |
| -R          | RoHS compliant version |

**Mechanical Diagrams**



**RECOMMENDED PCB LAYOUT**



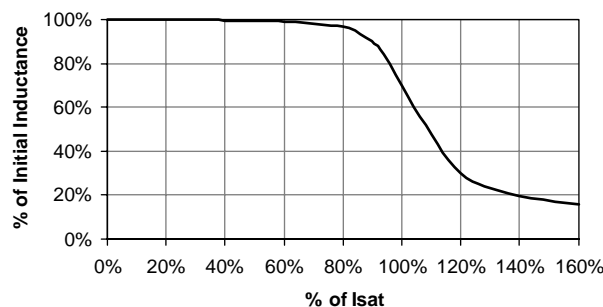
**SCHEMATIC**



Dimensions in Millimeters.

yww = Date Code xxx = Inductance value per family chart

**Inductance vs Saturation Current**



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