



## Features

- Available in E12 series
- Unit height of 5.2 mm
- Current up to 4.5 A
- RoHS compliant\*

## Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs
  - Car radios

# SRR1005 Series - Shielded Power Inductors

## Electrical Specifications

| Bourns Part No. | Inductance 1kHz |        | Q Ref. | Test Frequency (MHz) | SRF Min. (MHz) | RDC Max. (Ω) | I rms Max. (A) | I sat Typ. (A) |
|-----------------|-----------------|--------|--------|----------------------|----------------|--------------|----------------|----------------|
|                 | (μH)            | Tol. % |        |                      |                |              |                |                |
| SRR1005-1R0M    | 1.0             | ± 20   | 25     | 7.96M                | 120            | 0.017        | 4.50           | 8.00           |
| SRR1005-1R5M    | 1.5             | ± 20   | 25     | 7.96M                | 100            | 0.020        | 3.60           | 7.00           |
| SRR1005-2R2M    | 2.2             | ± 20   | 25     | 7.96M                | 90.0           | 0.027        | 3.10           | 6.10           |
| SRR1005-3R0M    | 3.0             | ± 20   | 25     | 7.96M                | 80.0           | 0.030        | 2.90           | 5.00           |
| SRR1005-3R3M    | 3.3             | ± 20   | 25     | 7.96M                | 75.0           | 0.039        | 3.30           | 3.90           |
| SRR1005-4R7M    | 4.7             | ± 20   | 25     | 7.96M                | 50.0           | 0.040        | 2.50           | 3.80           |
| SRR1005-6R8M    | 6.8             | ± 20   | 22     | 7.96M                | 35.0           | 0.075        | 2.20           | 2.80           |
| SRR1005-7R0M    | 7.0             | ± 20   | 22     | 7.96M                | 32.0           | 0.055        | 2.20           | 3.20           |
| SRR1005-100M    | 10              | ± 20   | 48     | 2.52M                | 30.0           | 0.065        | 2.00           | 3.00           |
| SRR1005-120M    | 12              | ± 20   | 45     | 2.52M                | 25.0           | 0.080        | 1.80           | 2.30           |
| SRR1005-150M    | 15              | ± 20   | 40     | 2.52M                | 20.0           | 0.085        | 1.70           | 2.10           |
| SRR1005-180Y    | 18              | ± 15   | 35     | 2.52M                | 19.0           | 0.090        | 1.60           | 2.10           |
| SRR1005-220Y    | 22              | ± 15   | 42     | 2.52M                | 18.0           | 0.100        | 1.40           | 1.90           |
| SRR1005-270Y    | 27              | ± 15   | 40     | 2.52M                | 17.0           | 0.120        | 1.30           | 1.60           |
| SRR1005-330Y    | 33              | ± 15   | 40     | 2.52M                | 15.0           | 0.160        | 1.20           | 1.56           |
| SRR1005-390Y    | 39              | ± 15   | 40     | 2.52M                | 13.0           | 0.180        | 1.05           | 1.40           |
| SRR1005-470Y    | 47              | ± 15   | 35     | 2.52M                | 12.0           | 0.190        | 1.00           | 1.30           |
| SRR1005-560Y    | 56              | ± 15   | 35     | 2.52M                | 11.0           | 0.210        | 0.90           | 1.10           |
| SRR1005-680Y    | 68              | ± 15   | 35     | 2.52M                | 9.0            | 0.340        | 0.82           | 1.10           |
| SRR1005-820Y    | 82              | ± 15   | 35     | 2.52M                | 8.0            | 0.380        | 0.75           | 0.95           |
| SRR1005-101K    | 100             | ± 10   | 35     | 0.796M               | 7.5            | 0.420        | 0.68           | 0.90           |
| SRR1005-121K    | 120             | ± 10   | 30     | 0.796M               | 7.2            | 0.460        | 0.60           | 0.80           |
| SRR1005-151K    | 150             | ± 10   | 28     | 0.796M               | 6.2            | 0.520        | 0.55           | 0.66           |
| SRR1005-181K    | 180             | ± 10   | 28     | 0.796M               | 5.8            | 0.700        | 0.50           | 0.65           |
| SRR1005-221K    | 220             | ± 10   | 30     | 0.796M               | 5.2            | 0.800        | 0.45           | 0.63           |
| SRR1005-271K    | 270             | ± 10   | 30     | 0.796M               | 4.8            | 1.100        | 0.40           | 0.52           |
| SRR1005-331K    | 330             | ± 10   | 30     | 0.796M               | 4.5            | 1.200        | 0.35           | 0.48           |
| SRR1005-391K    | 390             | ± 10   | 25     | 0.796M               | 4.2            | 1.400        | 0.33           | 0.45           |
| SRR1005-471K    | 470             | ± 10   | 40     | 0.796M               | 3.0            | 1.600        | 0.30           | 0.45           |
| SRR1005-561K    | 560             | ± 10   | 40     | 0.796M               | 2.7            | 1.800        | 0.28           | 0.42           |
| SRR1005-681K    | 680             | ± 10   | 37     | 0.796M               | 2.6            | 2.300        | 0.26           | 0.38           |
| SRR1005-821K    | 820             | ± 10   | 37     | 0.796M               | 2.5            | 2.600        | 0.24           | 0.36           |
| SRR1005-102K    | 1000            | ± 10   | 65     | 0.252M               | 2.0            | 3.200        | 0.22           | 0.32           |
| SRR1005-122K    | 1200            | ± 10   | 58     | 0.252M               | 2.0            | 3.600        | 0.20           | 0.29           |
| SRR1005-152K    | 1500            | ± 10   | 53     | 0.252M               | 1.6            | 5.200        | 0.17           | 0.24           |
| SRR1005-182K    | 1800            | ± 10   | 65     | 0.252M               | 1.4            | 5.700        | 0.16           | 0.23           |
| SRR1005-222K    | 2200            | ± 10   | 55     | 0.252M               | 1.4            | 6.500        | 0.14           | 0.21           |
| SRR1005-272K    | 2700            | ± 10   | 55     | 0.252M               | 1.2            | 8.600        | 0.12           | 0.18           |
| SRR1005-332K    | 3300            | ± 10   | 50     | 0.252M               | 1.2            | 10.00        | 0.10           | 0.17           |

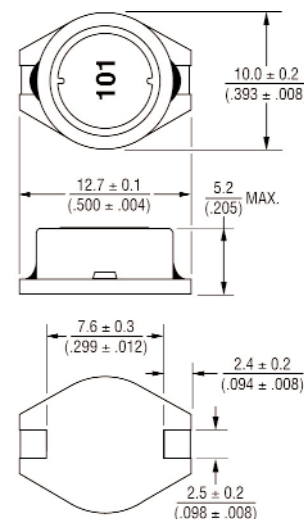
## General Specifications

Test Voltage.....1 V  
 Reflow soldering.....250 °C; 10 sec max.  
 (In compliance with JEDEC, J-STD-020C, Table 4-2)  
 Operating Temperature ..-40 °C to +125 °C  
 (Temperature rise included)  
 Storage Temperature..-40 °C to +125 °C  
 Resistance to Soldering Heat  
 .....250 °C, 10 sec. max.

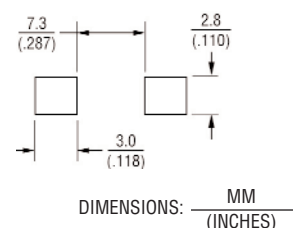
## Materials

Core.....Ferrite DR and RI core  
 Wire .....Enameled copper  
 Base .....DAP  
 Terminal .....Cu/Ni/Sn  
 Rated Current  
 .....Ind. drop 10 % typ. at Isat  
 Temperature Rise  
 .....40 °C max. at rated I rms  
 Packaging.....600 pcs. per reel

## Product Dimensions



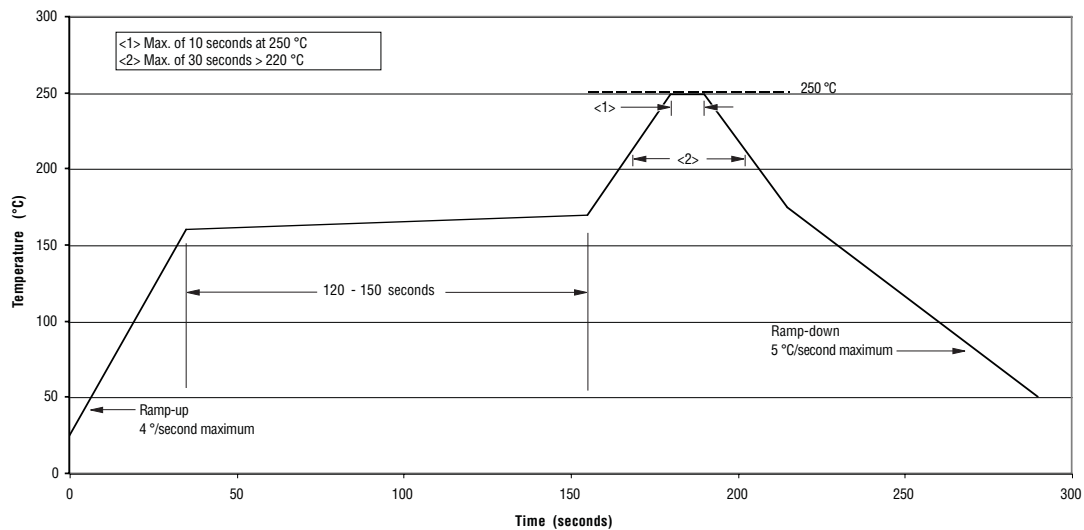
## Recommended Layout



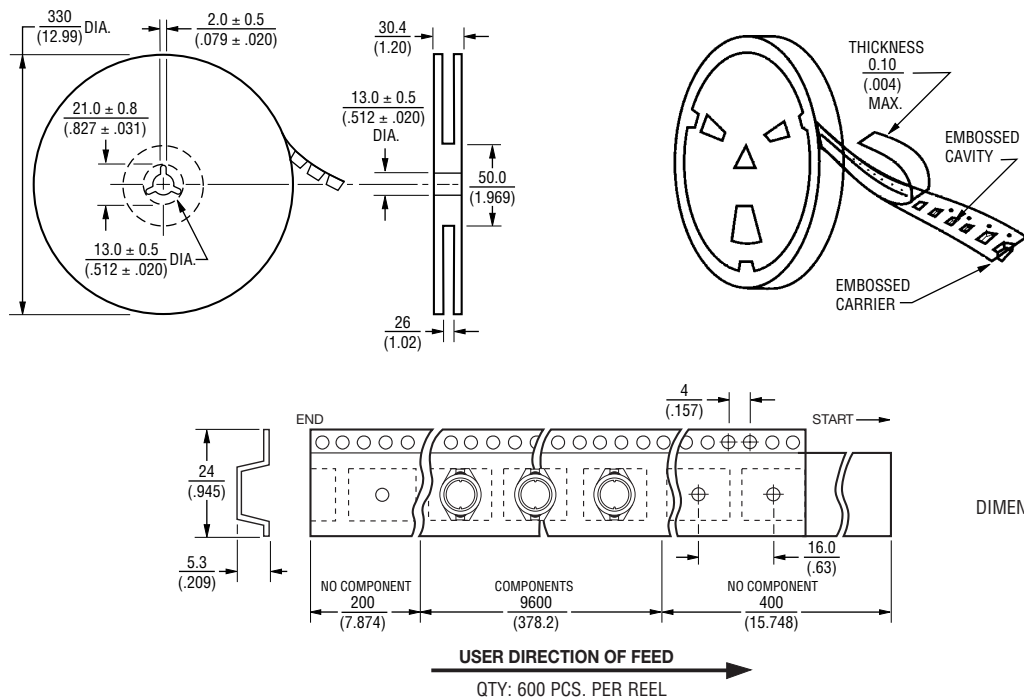
# SRR1005 Series - Shielded Power Inductors

**BOURNS®**

## Soldering Profile



## Packaging Specifications



REV. 09/11

Specifications are subject to change without notice.

Customers should verify actual device performance in their specific applications.

# Mouser Electronics

Authorized Distributor

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## Bourns:

|                                      |                                      |                                      |                                      |                                      |                                      |
|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| <a href="#"><u>SRR1005-1R0ML</u></a> | <a href="#"><u>SRR1005-121KL</u></a> | <a href="#"><u>SRR1005-270YL</u></a> | <a href="#"><u>SRR1005-470YL</u></a> | <a href="#"><u>SRR1005-390YL</u></a> | <a href="#"><u>SRR1005-102KL</u></a> |
| <a href="#"><u>SRR1005-1R5ML</u></a> | <a href="#"><u>SRR1005-271KL</u></a> | <a href="#"><u>SRR1005-120ML</u></a> | <a href="#"><u>SRR1005-330YL</u></a> | <a href="#"><u>SRR1005-101KL</u></a> | <a href="#"><u>SRR1005-560YL</u></a> |
| <a href="#"><u>SRR1005-820YL</u></a> | <a href="#"><u>SRR1005-471KL</u></a> | <a href="#"><u>SRR1005-391KL</u></a> | <a href="#"><u>SRR1005-181KL</u></a> | <a href="#"><u>SRR1005-3R0ML</u></a> | <a href="#"><u>SRR1005-150ML</u></a> |
| <a href="#"><u>SRR1005-681KL</u></a> | <a href="#"><u>SRR1005-4R7ML</u></a> | <a href="#"><u>SRR1005-152KL</u></a> | <a href="#"><u>SRR1005-680YL</u></a> | <a href="#"><u>SRR1005-151KL</u></a> | <a href="#"><u>SRR1005-180YL</u></a> |
| <a href="#"><u>SRR1005-331KL</u></a> | <a href="#"><u>SRR1005-100ML</u></a> | <a href="#"><u>SRR1005-332KL</u></a> | <a href="#"><u>SRR1005-2R2ML</u></a> | <a href="#"><u>SRR1005-7R0ML</u></a> | <a href="#"><u>SRR1005-221KL</u></a> |
| <a href="#"><u>SRR1005-821KL</u></a> | <a href="#"><u>SRR1005-220YL</u></a> | <a href="#"><u>SRR1005-220ML</u></a> | <a href="#"><u>SRR1005-222KL</u></a> |                                      |                                      |