SRP2512TMA Series - Shielded Power Inductors

*RoHS COMPLIANT, **HALOGEN FREE & AEC-Q200 COMPLIANT

Additional Information

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- INVENTORY
- SAMPLES
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Electrical Specifications @ 25 °C

<table>
<thead>
<tr>
<th>Bourns Part No.</th>
<th>Inductance @ 1 MHz / 1 V L (μH)</th>
<th>Q 1 MHz Typ.</th>
<th>1 MHz SRF (MHz) Typ.</th>
<th>DCR (mΩ) Typ.</th>
<th>DCRR (mΩ) Max.</th>
<th>Irms (A) Typ.</th>
<th>Isat (A) Typ.</th>
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<tbody>
<tr>
<td>SRP2512TMA-R24M</td>
<td>0.24</td>
<td>20</td>
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<td>SRP2512TMA-1R0M</td>
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<td>79.2</td>
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**WARNING**
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Specifications are subject to change without notice. Users should verify actual device performance in their specific applications.

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Features

- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR
- Wide range of operating temperatures
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Electrical Schematic

Product Dimensions

Soldering Profile

Preheat
- Temperature Min. (T_smin)
- Temperature Max. (T_smax)
- Time (t_s) from T_smin to T_smax

Ramp-up Rate (T_L to T_P)
3 °C/second max.

Liquidus temperature (T_L)
217 °C
60-150 seconds

Peak package body temperature (T_P)
260 °C

Time within 5 °C of Actual Peak Temperature (t_p)
< 30 seconds

Ramp-Down Rate (T_P to T_L)
6 °C/second max.

Time 25 °C to Peak Temperature
8 minutes max.

REFLOW TIMES: 3 TIMES MAX.

General Specifications

Operating Temperature
-55 °C to +150 °C (Temperature rise included)

Storage Temperature (Component)
-55 °C to +150 °C

Temperature Rise
40 °C at rated Irms

Rated Current
Inductance drops 30 % at Isat

Moisture Sensitivity Level
1

ESD Classification (HBM)
1

Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

Core...
Metal alloy powder

Wire
Enameled copper

Terminal Finish
Ni/Sn

Packaging
2000 pcs. per 7-inch reel

How to Order

SRP2512TMA - 1R0M

Model Value Code (see table)

Profile Feature

Pb Free Assembly

Preheat

150 °C
200 °C
60-120 seconds

Ramp-up Rate (T_L to T_P)
3 °C/second max.

Liquidus temperature (T_L)
217 °C
60-150 seconds

Peak package body temperature (T_P)
260 °C

Time within 5 °C of Actual Peak Temperature (t_p)
< 30 seconds

Ramp-Down Rate (T_P to T_L)
6 °C/second max.

Time 25 °C to Peak Temperature
8 minutes max.

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** Bourns considers a product to be “halogen free” if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
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Packaging Specifications

DIMENSIONS: MM (INCHES)

QTY: 2000 PCS. PER REEL

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