

#### **Features**

- Compact size
- Shielded construction for low radiation
- Metal alloy powder core for high saturation current
- Flat wire
- Low DCR

- AEC-Q200 compliant
- RoHS compliant\* and halogen free\*\*

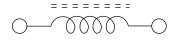
# **BOURNS**

## **SRP3212A Series - Shielded Power Inductors**

#### Electrical Specifications @ 25 °C

	Inductance @ 100 kHz / 1 V		Q Typ.	SRF	DCR	DCR	Irms	Isat
Bourns Part No.	<b>L</b> (μ <b>H</b> )	Tol. %	@ 100 kHz	(MHz) Typ.	(mΩ) Typ.	(mΩ) Max.	(A) Typ.	(A) Typ.
SRP3212A-R33M	0.33	20	3	132	10	13	8.5	9.1
SRP3212A-R47M	0.47	20	3	100	16	19	7.0	8.2
SRP3212A-R68M	0.68	20	5	83	20	24	6.2	7.3
SRP3212A-1R0M	1.0	20	5	63	26	32	5.5	6.5
SRP3212A-1R5M	1.5	20	5	43	44	53	4.4	5.0
SRP3212A-2R2M	2.2	20	5	41	61	73	4.0	4.8
SRP3212A-3R3M	3.3	20	5	28	87	101	3.1	3.4
SRP3212A-4R7M	4.7	20	5	25	122	146	2.2	2.8

#### **Electrical Schematic**



#### **How to Order**

SRP3212A - R33M

Model Value Code (see table)

#### **Additional Information**

Click these links for more information:











LIBRARY

### **General Specifications**

Operating Temperature

.....-40 °C to +150 °C (Temperature rise included)

Storage Temperature (Component) .....-40 °C to +150 °C

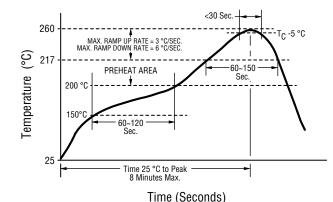
Temperature Rise ... 40 °C at rated Irms1 Rated Current

...... Inductance drops 30 % at Isat Moisture Sensitivity Level.....1 ESD Classification (HBM).....N/A

#### **Materials**

Core.....Metal alloy powder Wire .....Enameled copper Terminal Finish ......Ag/Ni/Sn Packaging...... 2000 pcs. per 7-inch reel

#### **Soldering Profile**



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly			
Preheat - Temperature Min. (T <sub>smin</sub> ) - Temperature Max. (T <sub>smax</sub> ) - Time(t <sub>s</sub> ) from T <sub>smin</sub> to T <sub>smax</sub>	150 °C 200 °C 60-120 seconds			
Ramp-up Rate (T <sub>L</sub> to T <sub>p</sub> )	3 °C/second max.			
Liquidous temperature (T <sub>L</sub> ) Time (t <sub>L</sub> ) maintained above T <sub>L</sub>	217 °C 60-150 seconds			
Peak package body temperature (Tp)	260 °C			
Time within 5 °C of Actual Peak Temperature (tp)	< 30 seconds			
Ramp-Down Rate (Tp to TL)	6 °C/second max.			
Time 25 °C to Peak Temperature	8 minutes max.			



#### **WARNING Cancer and Reproductive Harm** www.P65Warnings.ca.gov

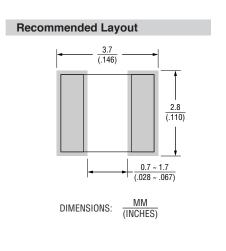
<sup>&</sup>lt;sup>1</sup> Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

RoHS Directive 2015/863, Mar 31, 2015 and Annex.

<sup>\*</sup> 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 (CI) content is 1500 ppm or less.

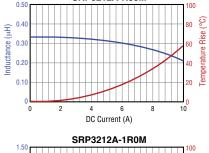
# **SRP3212A Series - Shielded Power Inductors**

# **Product Dimensions** $\frac{3.2 \pm 0.3}{(.126 \pm .012)}$ $\frac{2.5 \pm 0.3}{(.098 \pm .012)}$ $\frac{1.0 \pm 0.2}{(.039 \pm .008)}$ SIDE VIEW SIDE VIEW 1.1 ± 0.3 (.043 ± .012) MM DIMENSIONS: (INCHES)

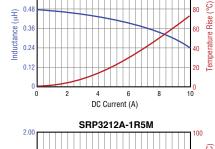


# SRP3212A-R33M

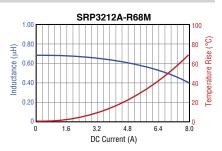
L vs. I Charts

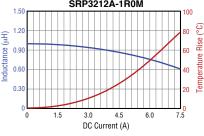


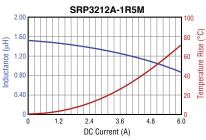
BOTTOM VIEW

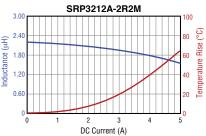


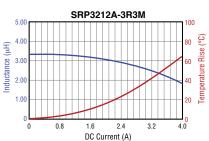
SRP3212A-R47M

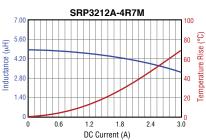








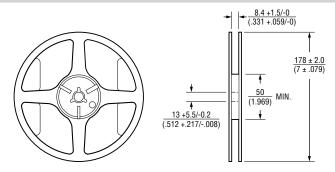


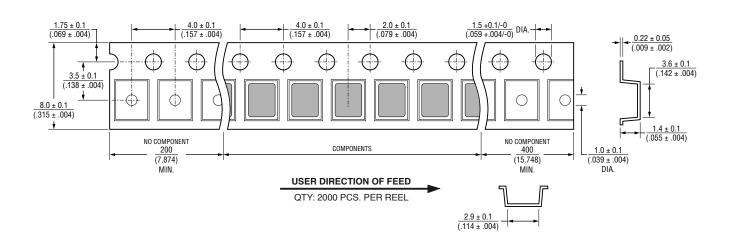


# SRP3212A Series - Shielded Power Inductors

# BOURNS

#### **Packaging Specifications**





DIMENSIONS:  $\frac{MM}{(INCHES)}$ 

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