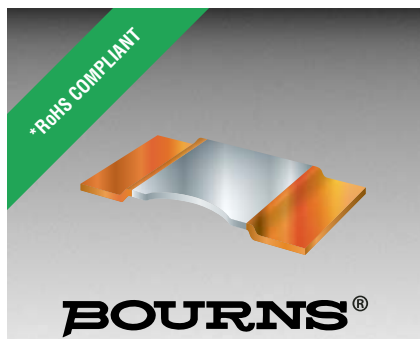




Features

- Low TCR (75 ppm/°C)
- High current capability
- Ultra low resistance values

Applications

- Power supplies
- Motor drives
- Electricity metering

PWR3920 S Series Power Resistor

Electrical Characteristics

Parameter	Value	Unit
Resistance Range	0.2, 0.3, 0.5, 1.0, 2.0, 3.0, 4.0	milliohms
Power Rating @ 70 °C	3.0	W
Tolerance	1, 5	%
Temperature Coefficient (TCR)	±75	PPM/°C
Operating Temperature	-65 to +170	°C
Maximum Operating Voltage	$\sqrt{P \times R}$	

General Information

The Bourns® PWR3920 Series is a surface mount shunt resistor offering up to 3 W of power and very low resistance values as well as excellent TCR characteristics. It is designed for applications such as motor drives and power supplies.

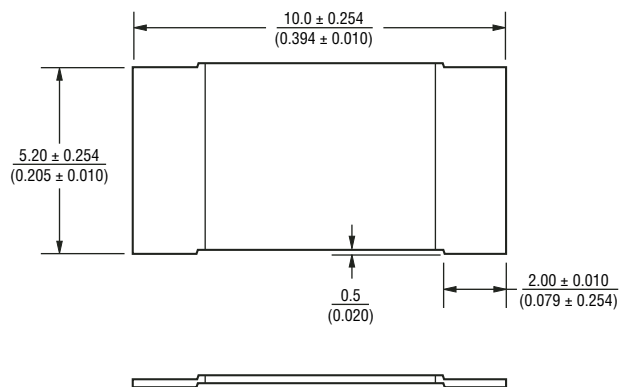
Environmental Characteristics

Description	Method	Limit (ΔR)
Short Time Overload	5 x Rated Power for 5 Seconds	± (1.0 % + 0.0005 Ω)
High Temperature Storage	1000 Hours at +175 °C	± (1.0 % + 0.0005 Ω)
Vibration	Frequency varied 10 to 2000 Hz in 1 Minute, 3 Directions, 12 Hours	± (0.5 % + 0.0005 Ω)
Mechanical Shock	100 g for 6 Milliseconds, 5 Pulses	± (0.5 % + 0.0005 Ω)
Load Life	1000 Hours at +70 °C, 1.5 Hours "ON", 0.5 Hours "OFF"	± (0.5 % + 0.0005 Ω)
Bias Humidity	+85 °C, 85 % RH, 10 % Bias, 1000 Hours	± (0.5 % + 0.0005 Ω)
Resistance to Solder Heat	+260 °C Solder, 10 - 12 Second Dwell, 25 mm/Second	± (0.5 % + 0.0005 Ω)
Low Temperature Storage	-65 °C for 45 Minutes	± (0.5 % + 0.0005 Ω)
Load Life	$\sqrt{P \times R}$ for 1000 Hours, 1.5 Hours "ON", 0.5 Hours "OFF"	± (1.0 % + 0.0005 Ω)
Moisture Resistance	MIL-STD-202, Method 106, 0 % Power, 7a and 7b Not Required	± (0.5 % + 0.0005 Ω)
Resistance to Soldering Heat	260 °C for 10 Seconds	± (0.5 % + 0.0005 Ω)
Thermal Shock	1000 Cycles from -55 °C to +150 °C, 15 Minutes at Temperature	± (0.5 % + 0.0005 Ω)

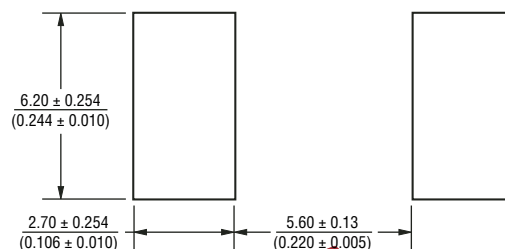
PWR3920 S Series Power Resistor

BOURNS®

Product Dimensions



Solder Pads



DIMENSIONS = $\frac{\text{MILLIMETERS}}{25.4}$ (INCHES)

How to Order

PWR 3920 - 2 S B R0040 J E

Model _____
PWR = Power Resistor

Package _____
3920 = 0.39 x 0.20 inches

Number of Terminals _____
2 = 2

Function _____
S = Shunt

Version _____

Resistor Value _____
R (4 Digits)

Absolute Tolerance _____
J = 5 % F = 1 %

Packaging _____
E = Tape & Reel
___ = Bulk

Packaging Specifications

Type16 mm/Embossed Plastic
Reel330 mm/13 in. diameter
Pieces per Reel3000



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