

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	√PxR	

General Information

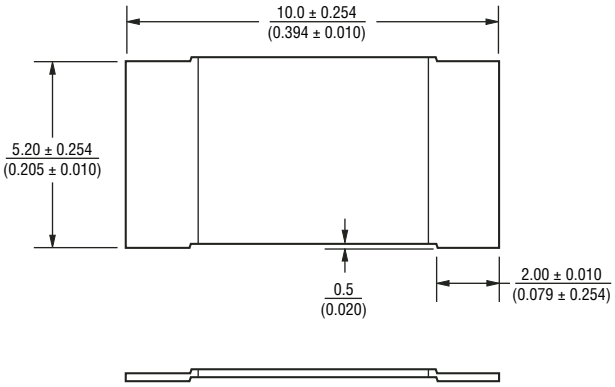
The Bourns® PWR3920 Series is a surface mount shunt resistor offering up to 3 W of power and very low resistance values as well as excellent TCR characteristics. It is designed for applications such as motor drives and power supplies.

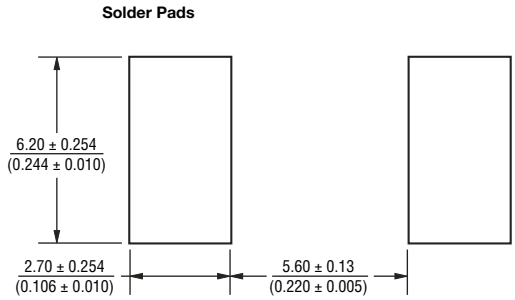
Environmental Characteristics

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	√(PxR) 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)

*RoHS Directive 2002/95/EC Jan 27 2003, including Annex
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Product Dimensions





DIMENSIONS = MILLIMETERS / (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

Tape .....16 mm/Embossed Plastic
Reel .....330 mm/13 in. diameter
Pieces per Reel 3000

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