



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{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.

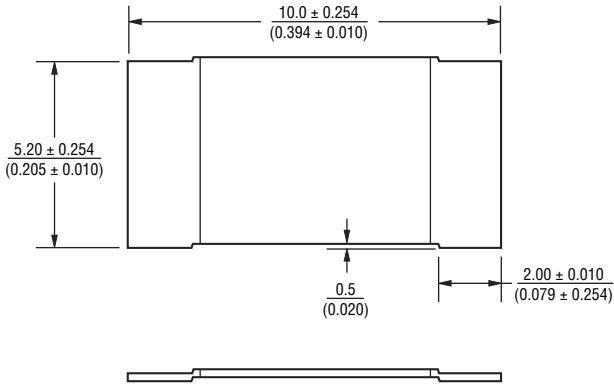
Environmental Characteristics

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	\sqrt{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)

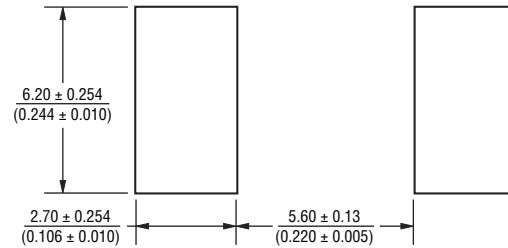
PWR3920 S Series Power Resistor



Product Dimensions

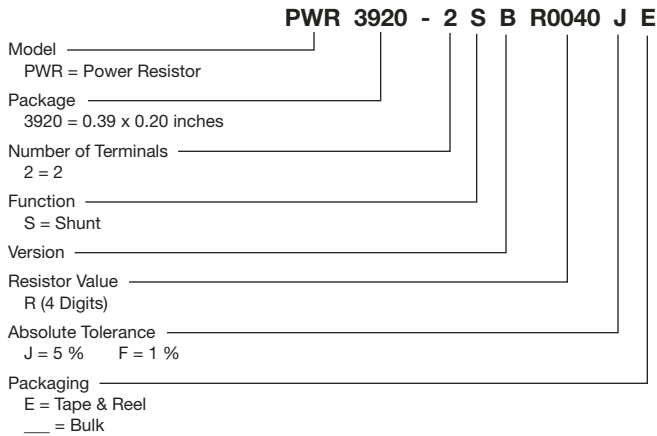


Solder Pads



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

How to Order



Packaging Specifications

Tape16 mm/Embossed Plastic
 Reel330 mm/13 in. diameter
 Pieces per Reel3000



Reliable Electronic Solutions

Asia-Pacific:

Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe:

Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas:

Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com