

# Type RS60SB

## Resettable Fuse (PTC's)

### Radial Leaded



www.optifuse.com (619) 593-5050

#### Application:

Wide variety of electronic equipment

#### Product Features:

Low hold current, Solid State

Radial-leaded product ideal for up to 60V

**Operation Current:** 500mA~5.00A

**Maximum Voltage:** 60V

**Temperature Range:** -40°C to 85°C

#### Agency Standards and Listings:



For RS60SB-050 ~ RS60SB-065  
RS60SB-090 ~ RS60SB-375

And  for RS60SB-075

### Electrical Characteristics (20°C)

Part Number	Hold Current	Trip Current	Max. Time To Trip		Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
			I, A	Time(sec)				R <sub>MIN</sub>	R <sub>1MAX</sub>
	I <sub>H</sub> , A	I <sub>T</sub> , A	I, A	Time(sec)	I <sub>MAX</sub> , A	V <sub>MAX</sub> , V	Pd, W	Ω	Ω
RS60SB-050	0.50	1.00	8.00	0.8	40	60	1.00	0.320	0.900
RS60SB-065	0.65	1.30	8.00	1.0	40	60	1.25	0.250	0.720
RS60SB-075	0.75	1.50	8.00	1.5	40	60	1.40	0.200	0.640
RS60SB-090	0.90	1.80	8.00	2.0	40	60	1.50	0.190	0.520
RS60SB-110	1.10	2.20	8.00	3.0	40	60	2.20	0.170	0.470
RS60SB-135	1.35	2.70	8.00	4.5	40	60	2.30	0.110	0.370
RS60SB-160	1.60	3.20	8.20	9.0	40	60	2.40	0.100	0.320
RS60SB-185	1.85	3.70	9.25	12.6	40	60	2.60	0.060	0.250
RS60SB-250	2.50	5.00	12.50	15.6	40	60	2.80	0.040	0.140
RS60SB-300	3.00	6.00	15.00	19.8	40	60	3.20	0.030	0.080
RS60SB-375	3.75	7.50	18.75	22.0	40	60	3.40	0.017	0.060
RS60SB-400	4.00	8.00	20.00	24.0	40	60	3.70	0.014	0.060
RS60SB-500	5.00	10.00	25.00	28.0	40	60	5.00	0.012	0.050

I<sub>H</sub> = **Hold Current** – Maximum current at which the device will not trip at 20°C still air.

I<sub>T</sub> = **Trip Current** – Minimum current at which the device will always trip at 20°C still air.

V<sub>MAX</sub> = Maximum voltage device can withstand without damage at it's rated current.

I<sub>MAX</sub> = Maximum fault current device can withstand without damage at rated voltage (V max).

Pd = Typical power dissipated from device when in the tripped state in 20°C still air environment.

R<sub>MIN</sub> = Minimum device resistance at 20°C.

R<sub>1MAX</sub> = Maximum device resistance at 20°C, 1 hour after tripping.

### Physical Specifications:

**Lead Material:** Tin plated copper, 24 AWG, 20 AWG.

**Soldering Characteristics:** MIL-STD-202, Method 208E.

**Insulating Coating:** Flame retardant epoxy, meet UL-94V-0 requirement.

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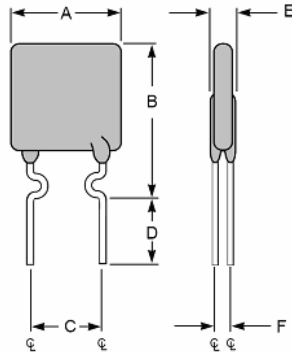


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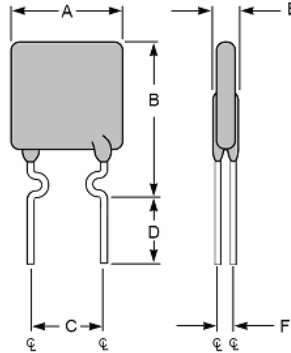
### RS60SB Product Dimensions (millimeters)

Figure 1



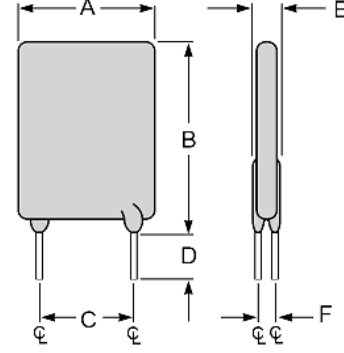
**RS60SB-050 ~ RS60SB-090**  
Lead Size: 24AWG,  
0.51 mm Diameter

Figure 2



**RS60SB-110**  
Lead Size: 20AWG,  
0.81 mm Diameter

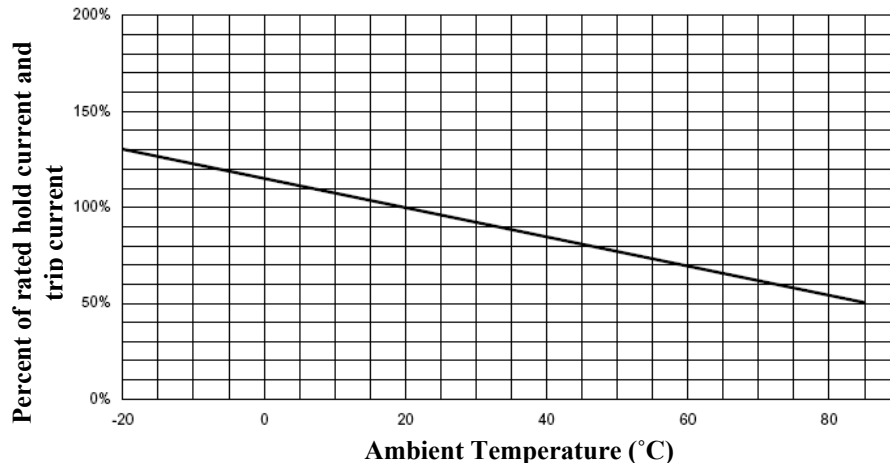
Figure 3



**RS60SB-135 ~ RS60SB-500**  
Lead Size: 20AWG,  
0.81 mm Diameter

Part Number	Figure	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
<b>RS60SB-050</b>	1	7.10	11.43	5.1	7.6	3.56	1.1
<b>RS60SB-065</b>	1	7.11	12.20	5.1	7.6	3.56	1.1
<b>RS60SB-075</b>	1	7.87	12.20	5.1	7.6	3.56	1.1
<b>RS60SB-090</b>	1	7.87	13.97	5.1	7.6	3.56	1.1
<b>RS60SB-110</b>	2	7.60	14.50	5.1	7.6	4.10	1.1
<b>RS60SB-135</b>	3	10.20	17.00	5.1	7.6	3.81	1.4
<b>RS60SB-160</b>	3	12.20	18.30	5.1	7.6	3.81	1.4
<b>RS60SB-185</b>	3	13.00	18.80	5.1	7.6	3.81	1.4
<b>RS60SB-250</b>	3	14.00	20.60	5.1	7.6	3.00	1.4
<b>RS60SB-300</b>	3	16.50	21.20	5.1	7.6	3.00	1.4
<b>RS60SB-375</b>	3	16.50	25.20	10.2	7.6	3.00	1.4
<b>RS60SB-400</b>	3	21.00	24.90	10.2	7.6	3.00	1.4
<b>RS60SB-500</b>	3	24.10	29.00	10.2	7.6	3.00	1.4

### Thermal Derating Curve – Type RS60SB



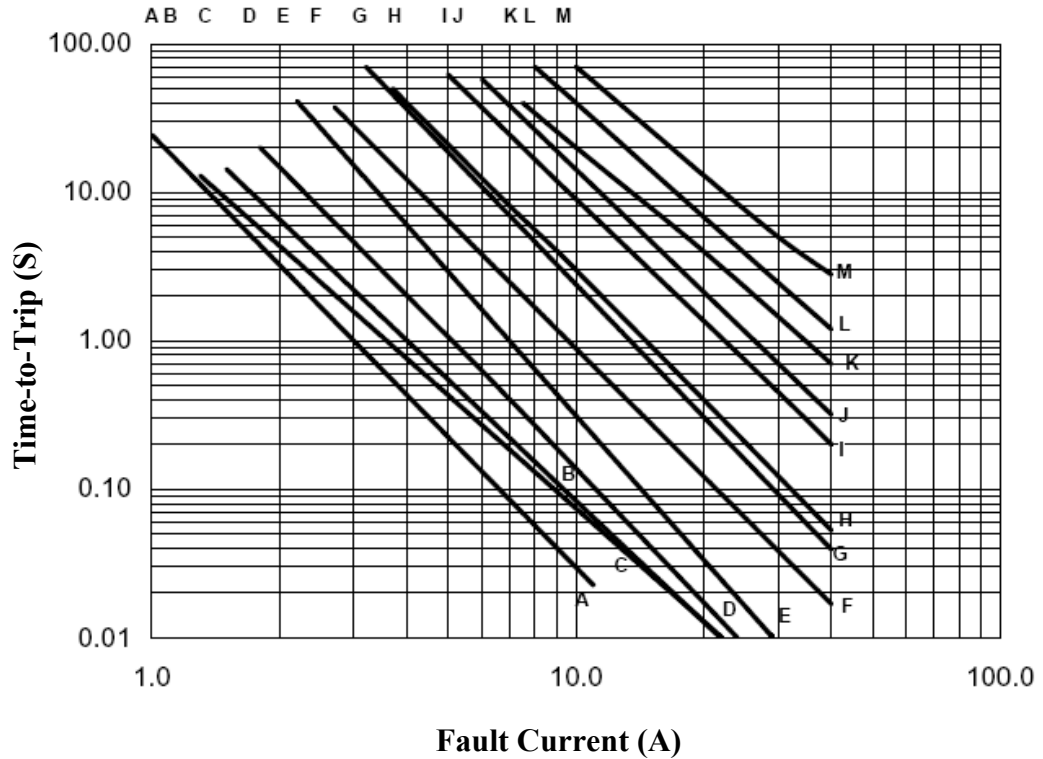
Note: All specifications subject to change without notice.

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**Typical Time-To-Trip at 20°C**



- A = RS60SB-050
- B = RS60SB-065
- C = RS60SB-075
- D = RS60SB-090
- E = RS60SB-110
- F = RS60SB-135
- G = RS60SB-160
- H = RS60SB-185
- I = RS60SB-250
- J = RS60SB-300
- K = RS60SB-375
- L = RS60SB-400
- M = RS60SB-500

Part Number	Pcs/Bag	Reel/Tape
RS60SB-050	500	3K
RS60SB-065	300	3K
RS60SB-075	300	3K
RS60SB-090	300	1.5K
RS60SB-110	300	1.5K
RS60SB-135	200	1.5K
RS60SB-160	200	1.5K

Part Number	Pcs/Bag	Reel/Tape
RS60SB-185	200	1.5K
RS60SB-250	100	1K
RS60SB-300	100	1K
RS60SB-375	100	1K
RS60SB-400	100	1K
RS60SB-500	100	1K

	<b>Warning:</b> -Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
	-PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.
	-Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.