

# Type RS30

## Resettable Fuse (PTC's)

### Radial Leaded



www.optifuse.com

(619) 593-5050

#### Application:

Wide variety of electronic equipment

#### Product Features:

Low resistance, High hold current, Solid State

Radial-leaded product ideal for up to 30V

**Operation Current:** 900mA~9A

**Maximum Voltage:** 30V

**Temperature Range:** -40°C to 85 °C

**Agency Standards and Listings:**



#### Electrical Characteristics (23°C)

Part Number	Hold Current	Trip Current	Max. Time To Trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
	$I_H, A$	$I_T, A$	at $5xI_H, S$	$I_{MAX}, A$	$V_{MAX}, Vdc$	$Pd, W$	$R_{MIN}, \Omega$	$R1_{MAX}, \Omega$
<b>RS30-090</b>	0.90	1.80	5.9	100	30	0.6	0.070	0.22
<b>RS30-110</b>	1.1	2.20	6.6	100	30	0.7	0.050	0.17
<b>RS30-135</b>	1.35	2.70	7.3	100	30	0.8	0.040	0.13
<b>RS30-160</b>	1.60	3.20	8.0	100	30	0.9	0.030	0.11
<b>RS30-185</b>	1.85	3.70	8.7	100	30	1.0	0.030	0.09
<b>RS30-250</b>	2.50	5.00	10.3	100	30	1.2	0.020	0.07
<b>RS30-300</b>	3.00	6.00	10.8	100	30	2.0	0.020	0.08
<b>RS30-400</b>	4.00	8.00	12.7	100	30	2.5	0.010	0.05
<b>RS30-500</b>	5.00	10.00	14.5	100	30	3.0	0.010	0.05
<b>RS30-600</b>	6.00	12.00	16.0	100	30	3.5	0.005	0.04
<b>RS30-700</b>	7.00	14.00	17.5	100	30	3.8	0.005	0.03
<b>RS30-800</b>	8.00	16.00	18.8	100	30	4.0	0.005	0.02
<b>RS30-900</b>	9.00	18.00	20.0	100	30	4.2	0.005	0.02

$I_H$  = **Hold Current** – Maximum current at which the device will not trip at 23°C still air.

$I_T$  = **Trip Current** – Minimum current at which the device will always trip at 23°C still air.

$V_{MAX}$  = Maximum voltage device can withstand without damage at it's rated current.

$I_{MAX}$  = Maximum fault current device can withstand without damage at rated voltage (V max).

$Pd$  = Maximum power dissipated from device when in the tripped state in 23°C still air environment.

$R_{MIN}$  = Minimum device resistance at 23°C.

$R1_{MAX}$  = Maximum device resistance at 23°C, 1 hour after tripping.

Note: All specifications subject to change without notice.

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## Physical Specifications:

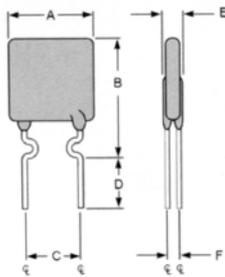
**Lead Material:** RS30-090 ~ RS30-250: Tin plated copper, 24 AWG.

RS30-300 ~ RS30-900: Tin plated copper, 20 AWG.

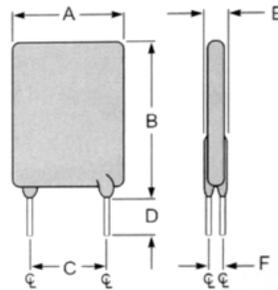
**Soldering Characteristics:** MIL-STD-202, method 208E.

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

## RS30 Product Dimensions (millimeters)



**RS30-090 ~ RS30-250**  
Lead Size: 24AWG,  
0.51 mm Diameter



**RS30-300 ~ RS30-900**  
Lead Size: 20AWG,  
0.81 mm Diameter

Part Number	A	B	C	D	E	F
	Maximum	Maximum	Typical	Minimum	Maximum	Typical
RS30-090	7.4	12.2	5.1	7.6	3.0	0.9
RS30-110	7.4	14.2	5.1	7.6	3.0	0.9
RS30-135	8.9	13.5	5.1	7.6	3.0	0.9
RS30-160	8.9	15.2	5.1	7.6	3.0	0.9
RS30-185	10.2	15.7	5.1	7.6	3.0	0.9
RS30-250	11.4	18.3	5.1	7.6	3.0	0.9
RS30-300	11.4	17.3	5.1	7.6	3.0	1.2
RS30-400	14.0	20.1	5.1	7.6	3.0	1.2
RS30-500	14.0	24.9	10.2	7.6	3.0	1.2
RS30-600	16.5	24.9	10.2	7.6	3.0	1.2
RS30-700	19.1	26.7	10.2	7.6	3.0	1.2
RS30-800	21.6	29.2	10.2	7.6	3.0	1.2
RS30-900	24.1	29.7	10.2	7.6	3.0	1.2

### Warning:



-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 is not anticipated.  
 -Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.

Note: All specifications subject to change without notice.

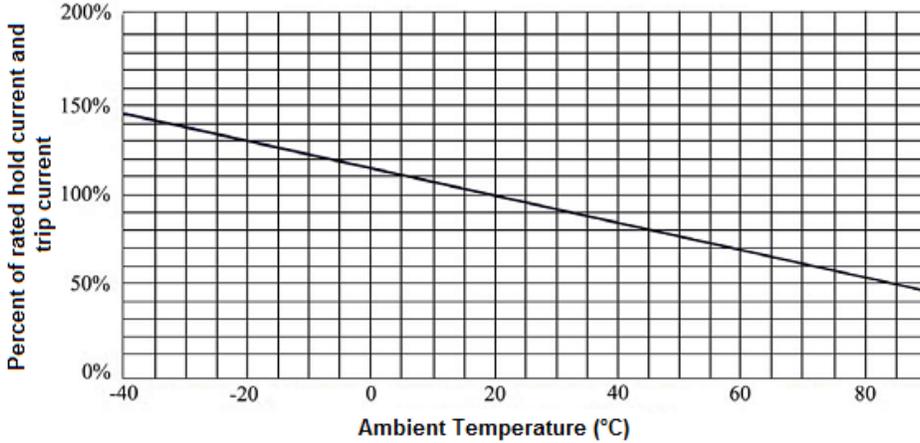
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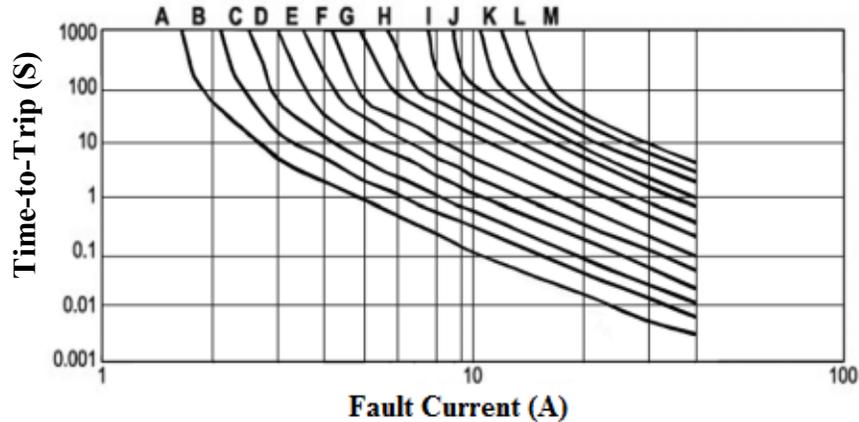
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## Thermal Derating Curve – RS30 Series



## Typical Time-To-Trip at 23°C

- A = RS30-090
- B = RS30-110
- C = RS30-135
- D = RS30-160
- E = RS30-185
- F = RS30-250
- G = RS30-300
- H = RS30-400
- I = RS30-500
- J = RS30-600
- K = RS30-700
- L = RS30-800
- M = RS30-900



## Standard Package

Part Number	Pcs/Bag	Reel/Tape
RS30-090	500	3K
RS30-110	500	3K
RS30-135	300	3K
RS30-160	300	3K
RS30-185	300	3K
RS30-250	300	3K
RS30-300	200	1.5K

Part Number	Pcs/Bag	Reel/Tape
RS30-400	200	1.5K
RS30-500	200	---
RS30-600	100	---
RS30-700	100	---
RS30-800	100	---
RS30-900	100	---

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