

# Type RS120

## 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 135V AC/DC

**Operation Current:** 100mA~3.75A

**Maximum Operating Voltage:** 120V AC/DC

**Maximum Interrupt Voltage:** 135V AC/DC

**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	Max. Int. Voltage	Typical Power	Resistance Tolerance	
	$I_H$ , A	$I_T$ , A	at $5xI_H$ , S	$I_{MAX}$ , A	$V_{MAX}$ , V <sub>AC/DC</sub>	$V_{I-MAX}$ , V <sub>AC/DC</sub>	Pd, W	$R_{MIN}$ Ω	$R_{1MAX}$ Ω
RS120-010	0.10	0.20	10.0	2.0	120	135	0.84	3.00	7.50
RS120-017	0.17	0.34	10.0	2.0	120	135	0.84	2.00	7.00
RS120-020	0.20	0.40	9.0	2.0	120	135	1.08	1.83	4.40
RS120-025	0.25	0.50	7.5	3.0	120	135	1.08	1.25	3.00
RS120-030	0.30	0.60	8.5	3.0	120	135	1.44	0.88	2.10
RS120-040	0.40	0.80	6.5	3.0	120	135	1.44	0.55	1.29
RS120-050	0.50	1.00	6.0	3.0	120	135	1.56	0.50	1.17
RS120-065	0.65	1.30	5.7	5.0	120	135	1.68	0.31	0.72
RS120-070	0.75	1.50	6.3	5.0	120	135	1.80	0.25	0.60
RS120-075	0.75	1.50	15.0	7.5	120	135	2.64	0.25	0.69
RS120-090	0.90	1.80	7.2	5.0	120	135	1.80	0.20	0.47
RS120-100	1.00	2.00	15.0	10.0	120	135	2.64	0.18	0.47
RS120-110	1.10	2.20	8.2	8.0	120	135	2.28	0.15	0.38
RS120-125	1.25	2.50	20.0	12.5	120	135	2.88	0.11	0.33
RS120-130	1.35	2.70	9.6	10.0	120	135	2.64	0.12	0.30
RS120-135	1.35	2.70	20.0	13.5	120	135	3.12	0.11	0.30
RS120-160	1.60	3.20	11.4	12.0	120	135	3.12	0.09	0.22
RS120-185	1.85	3.70	12.6	12.0	120	135	3.36	0.08	0.19
RS120-200	2.00	4.20	36.0	20.0	120	135	4.32	0.08	0.21
RS120-250	2.50	5.00	15.6	15.0	120	135	4.44	0.05	0.13
RS120-300	3.00	6.00	19.8	17.0	120	135	4.56	0.04	0.10
RS120-375	3.75	7.50	24.0	20.0	120	135	4.80	0.03	0.08

$I_H$  = 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.

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

Note: All specifications subject to change without notice.

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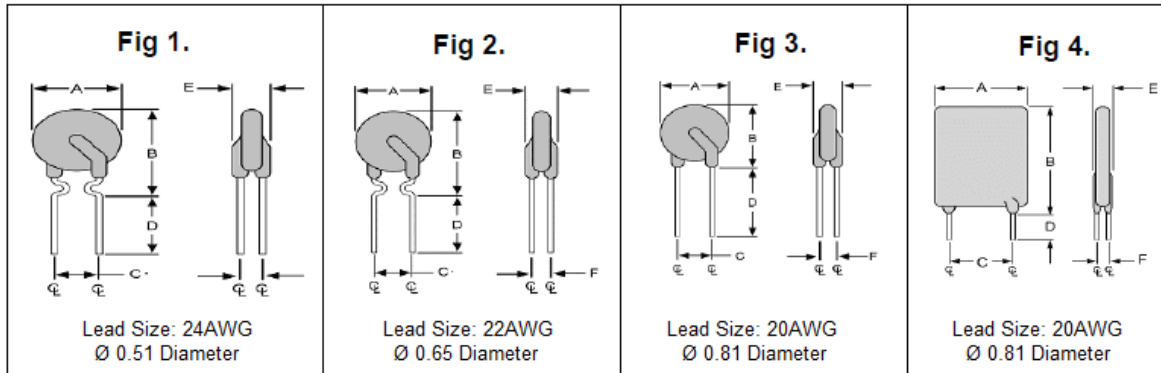


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## Physical Specifications:

- Lead Material:** Tin plated copper, 24AWG, 22 AWG, 20AWG.
- Soldering Characteristics:** MIL-STD-202, method 208E.
- Insulating Coating:** Flame retardant epoxy, meet UL-94V-0 requirement.

## RS120 Product Dimensions (millimeters)



Part Number	Figure	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
RS120-010	1	7.9	13.0	5.1	7.6	3.8	2.2
RS120-017	1	7.9	13.0	5.1	7.6	3.8	2.2
RS120-020	2	7.9	13.0	5.1	7.6	3.8	2.2
RS120-025	2	7.9	13.0	5.1	7.6	3.8	2.2
RS120-030	2	7.9	13.0	5.1	7.6	3.8	2.2
RS120-040	2	8.2	14.2	5.1	7.6	3.8	2.2
RS120-050	2	9.2	14.9	5.1	7.6	3.8	2.2
RS120-065	2	9.7	14.9	5.1	7.6	3.8	2.2
RS120-070	2	10.6	15.5	5.1	7.6	3.8	2.2
RS120-075	4	10.9	17.0	5.1	7.6	4.1	2.2
RS120-090	2	11.9	15.9	5.1	7.6	3.8	2.2
RS120-100	4	11.5	20.1	5.1	7.6	4.1	2.2
RS120-110	3	13.3	18.3	5.1	7.6	4.1	2.2
RS120-125	4	14.0	21.7	5.1	7.6	4.1	2.2
RS120-130	3	15.5	20.6	5.1	7.6	4.1	2.2
RS120-135	4	16.3	21.7	5.1	7.6	4.1	2.2
RS120-160	3	17.5	22.5	5.1	7.6	4.1	2.2
RS120-185	3	19.9	24.9	5.1	7.6	4.1	2.2
RS120-200	4	23.5	27.9	5.1	7.6	4.1	2.2
RS120-250	3	22.5	27.5	10.2	7.6	4.1	2.2
RS120-300	3	22.5	30.0	10.2	7.6	4.1	2.2
RS120-375	3	25.5	34.0	10.2	7.6	4.1	2.2

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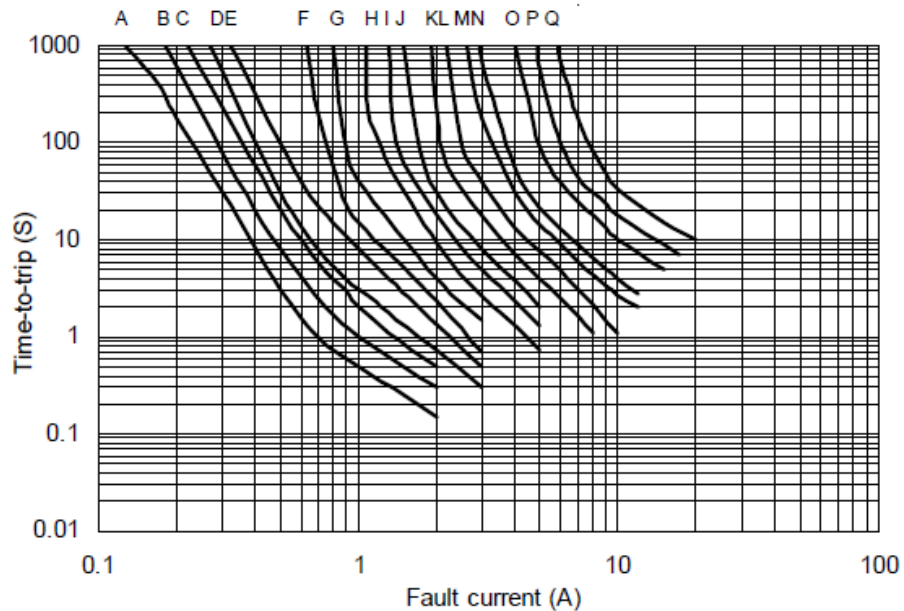
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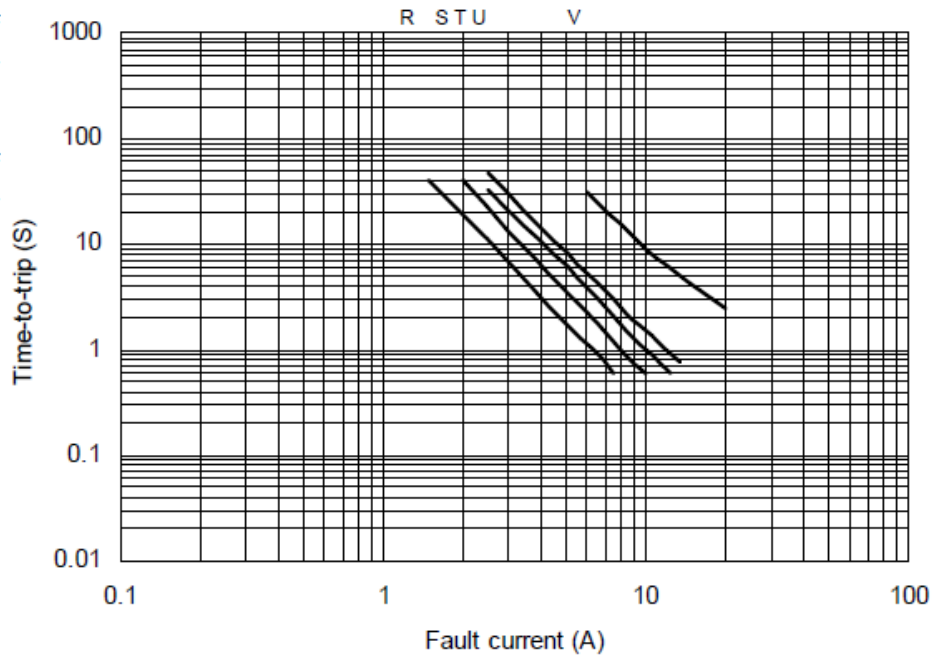
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## Typical Time-To-Trip at 23°C

- A = RS120-010
- B = RS120-017
- C = RS120-020
- D = RS120-025
- E = RS120-030
- F = RS120-040
- G = RS120-050
- H = RS120-065
- I = RS120-070
- J = RS120-090
- K = RS120-110
- L = RS120-130
- M = RS120-160
- N = RS120-185
- O = RS120-250
- P = RS120-300
- Q = RS120-375



- R = RS120-075
- S = RS120-100
- T = RS120-125
- U = RS120-135
- V = RS120-200



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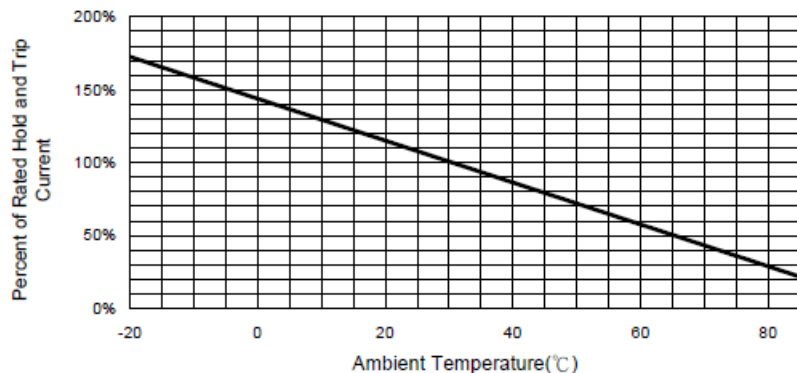
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## Thermal Derating Curve – RS120 Series



## Standard Package

Part Number	Pcs/Bag	Reel/Tape
RS120-010	500	2.0K
RS120-017	500	2.0K
RS120-020	500	2.0K
RS120-025	500	2.0K
RS120-030	500	2.0K
RS120-040	500	2.0K
RS120-050	500	2.0K
RS120-065	300	1.5K
RS120-070	300	1.5K
RS120-075	300	1.5K
RS120-090	300	2.0K

Part Number	Pcs/Bag	Reel/Tape
RS120-100	300	1.5K
RS120-110	300	1.5K
RS120-125	200	1.0K
RS120-130	200	1.0K
RS120-135	200	1.0K
RS120-160	200	----
RS120-185	100	----
RS120-200	100	----
RS120-250	100	----
RS120-300	100	----
RS120-375	100	----

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