

Radial Leaded PTC Resettable Fuse



Specifications:

Applications : Wide variety of electronic equipment.
Product features : Low hold current, solid state, radial leaded product ideal for up to 60V.
Maximum voltage : 60V.
Temperature range : -40°C to 85°C.



UL : E-345437



Electrical Characteristics (23°C)

| Hold Current | Trip Current | Maximum Time to Trip | Maximum Current | Rated Voltage | Typical Power | Resistance | | Part Number |
|--------------------|--------------------|-----------------------|----------------------|-------------------------|--------------------|------------------|-------------------|-------------|
| | | | | | | R _{Min} | R _{1Max} | |
| I _H , A | I _T , A | at 5 x I _H | I _{Max} , A | V _{Max} , V dc | P _d , W | Ω | Ω | |
| 0.05 | 0.10 | 5.0 | 40 | 60 | 0.26 | 7.30 | 20.0 | MC36183 |
| 0.20 | 0.40 | 2.2 | 40 | 60 | 0.41 | 1.83 | 4.40 | MC36187 |
| 0.25 | 0.50 | 2.5 | 40 | 60 | 0.45 | 1.25 | 3.00 | MC36188 |
| 0.30 | 0.60 | 3.0 | 40 | 60 | 0.49 | 0.88 | 2.10 | MC36189 |
| 0.40 | 0.80 | 3.8 | 40 | 60 | 0.56 | 0.55 | 1.29 | MC36191 |
| 0.50 | 1.00 | 4.0 | 40 | 60 | 0.77 | 0.50 | 1.17 | MC36192 |
| 0.65 | 1.30 | 5.3 | 40 | 60 | 0.88 | 0.31 | 0.72 | MC36194 |
| 0.75 | 1.50 | 6.3 | 40 | 60 | 0.92 | 0.25 | 0.60 | MC36195 |
| 0.90 | 1.80 | 7.2 | 40 | 60 | 0.99 | 0.20 | 0.47 | MC36196 |
| 1.10 | 2.20 | 8.2 | 40 | 60 | 1.50 | 0.15 | 0.38 | MC36197 |
| 1.35 | 2.70 | 9.6 | 40 | 60 | 1.70 | 0.12 | 0.30 | MC36198 |
| 1.60 | 3.20 | 11.4 | 40 | 60 | 1.90 | 0.09 | 0.22 | MC36199 |
| 1.85 | 3.70 | 12.6 | 40 | 60 | 2.10 | 0.08 | 0.19 | MC36200 |
| 2.50 | 5.00 | 15.6 | 40 | 60 | 2.50 | 0.05 | 0.13 | MC36201 |
| 3.00 | 6.00 | 19.8 | 40 | 60 | 2.80 | 0.04 | 0.10 | MC36202 |

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 its rated current.

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

P_d = Typical 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.

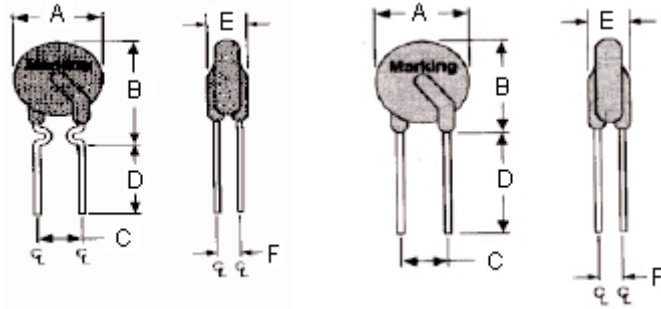
Radial Leaded PTC Resettable Fuse



Physical specifications:

Lead material : Tin plated copper.
 Soldering characteristics : MIL-STD-202, Method 208E.
 Insulating coating : Flame retardant epoxy.

Production Dimensions (millimetre)



FRX005-60F to FRX090-60F
 Lead Size : 24 AWG
 Ø0.51 mm Diameter

FRX110-60F to FRX300-60F
 Lead Size : 20 AWG
 Ø0.81 mm Diameter

Dimensions Table

| A | B | C | D | E | F | Part Number |
|---------|---------|---------|---------|---------|---------|-------------|
| Maximum | Maximum | Typical | Minimum | Maximum | Typical | |
| 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 | MC36183 |
| 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 | MC36187 |
| 7.4 | 12.7 | 5.1 | 7.6 | 3.1 | 1.1 | MC36188 |
| 7.4 | 13.0 | 5.1 | 7.6 | 3.1 | 1.1 | MC36189 |
| 7.6 | 13.5 | 5.1 | 7.6 | 3.1 | 1.1 | MC36191 |
| 7.9 | 13.7 | 5.1 | 7.6 | 3.1 | 1.1 | MC36192 |
| 9.7 | 14.5 | 5.1 | 7.6 | 3.1 | 1.1 | MC36194 |
| 10.4 | 15.2 | 5.1 | 7.6 | 3.1 | 1.1 | MC36195 |
| 11.7 | 15.8 | 5.1 | 7.6 | 3.1 | 1.1 | MC36196 |
| 13.0 | 18.0 | 5.1 | 7.6 | 3.1 | 1.4 | MC36197 |
| 14.5 | 19.6 | 5.1 | 7.6 | 3.1 | 1.4 | MC36198 |
| 16.3 | 21.3 | 5.1 | 7.6 | 3.1 | 1.4 | MC36199 |
| 17.8 | 22.9 | 5.1 | 7.6 | 3.1 | 1.4 | MC36200 |
| 21.3 | 26.4 | 10.2 | 7.6 | 3.1 | 1.4 | MC36201 |
| 24.9 | 30.0 | 10.2 | 7.6 | 3.1 | 1.4 | MC36202 |

Dimensions : Millimetres

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<http://www.newark.com>
<http://www.cpc.co.uk>

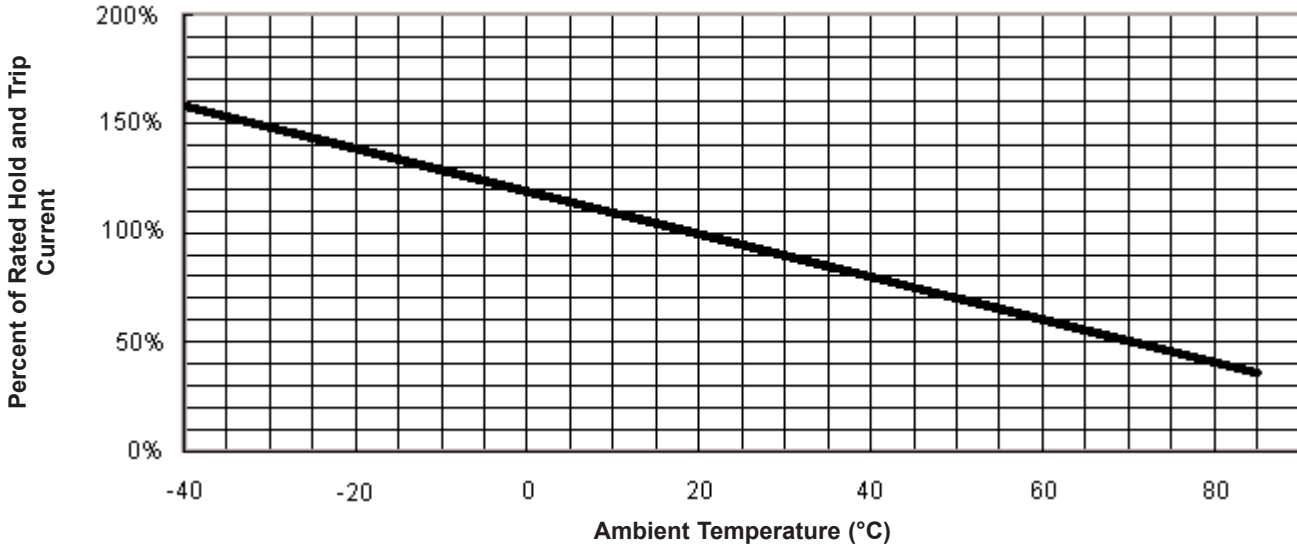


Radial Leaded PTC Resettable Fuse



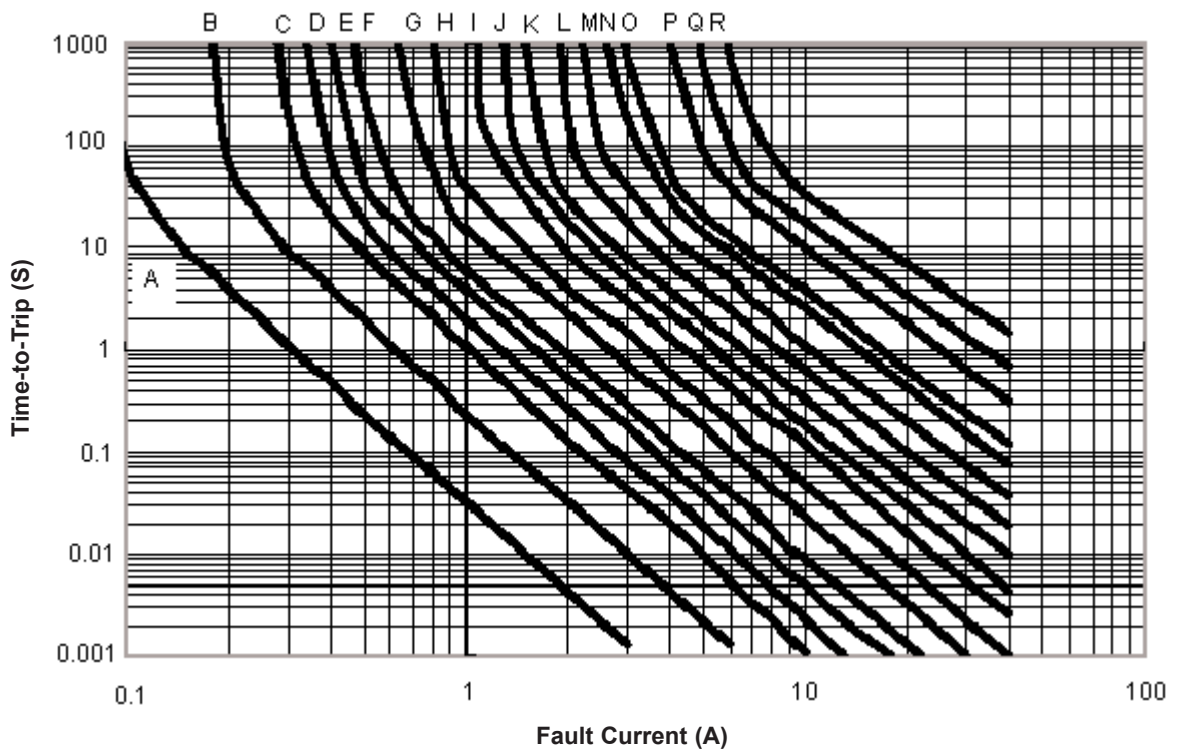
Thermal Derating Curve

Thermal Derating Curve



Typical Time-To-Trip at 23°C

- A = MC36183
- D = MC36187
- E = MC36188
- F = MC36189
- G = MC36191
- H = MC36192
- I = MC36194
- J = MC36195
- K = MC36196
- L = MC36197
- M = MC36198
- N = MC36199
- O = MC36200
- P = MC36201
- Q = MC36202



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Material Specification

Lead material : Tin plated copper.
Soldering characteristics : MIL-STD-202, Method 208E.
Insulating coating : Flame retardant epoxy.

Part Number Table

| Description | Part Number |
|-----------------------------------|-------------|
| Radial Leaded PTC Resettable Fuse | MC36183 |
| Radial Leaded PTC Resettable Fuse | MC36187 |
| Radial Leaded PTC Resettable Fuse | MC36188 |
| Radial Leaded PTC Resettable Fuse | MC36189 |
| Radial Leaded PTC Resettable Fuse | MC36191 |
| Radial Leaded PTC Resettable Fuse | MC36192 |
| Radial Leaded PTC Resettable Fuse | MC36194 |
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| Radial Leaded PTC Resettable Fuse | MC36197 |
| Radial Leaded PTC Resettable Fuse | MC36198 |
| Radial Leaded PTC Resettable Fuse | MC36199 |
| Radial Leaded PTC Resettable Fuse | MC36200 |
| Radial Leaded PTC Resettable Fuse | MC36201 |
| Radial Leaded PTC Resettable Fuse | MC36202 |

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