



# THE DATASHEET OF MPTR60V160



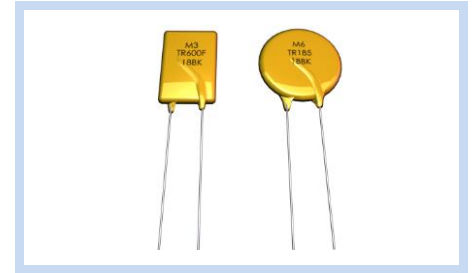
# PTC Resettable Fuse Radial Leaded Type

MPTR Series

MERITEK

## FEATURE

- Operating temperature: -40°C to 85°C
- High temperature type is up to 125°C
- Operation current: 0.05A to 15.0A
- Maximum voltage: 16V to 90V
- Wide variety of electronic applications
- UL/cUL safety approved: certification No: E223037
- TUV safety approved: certification No: R50223766



## PART NUMBERING SYSTEM

MPTR   16V   250   H  
(1)   (2)   (3)   (4)



| No  | Item           | Code | Description                    | Series Reference     |
|-----|----------------|------|--------------------------------|----------------------|
| (1) | Meritek Series | MPTR | Polymer Resettable Fuse Series | Radial Lead Type     |
| (2) | Voltage Rating | 16V  | 16V: 16VDC                     | 30V: 30VDC           |
| (3) | Current Rating | 250  | 250: 2.5A                      | 500: 5.0A            |
| (4) | Internal Code  | H    | H: High Temperature Range      | Blank: Standard Type |

## ELECTRICAL CHARACTERISTICS AT 23°C

| Item             | Value             | Characteristics  |
|------------------|-------------------|--|
| Hold Current     | 2.5A              | $I_H$ =Hold current-maximum current at which the device will not trip at 23°C still air.   |
| Trip Current     | 4.7A              | $I_T$ =Trip current-minimum current at which the device will always trip at 23°C still air.  |
| Rated Voltage    | 16V <sub>DC</sub> | $V_{MAX}$ =Maximum voltage device can withstand without damage at its rated current ( $I_{MAX}$ ).                                     |
| Max Current      | 100A              | $I_{MAX}$ = Maximum fault current device can withstand without damage at rated voltage ( $V_{MAX}$ ).                                  |
| Typical Power    | 1.0W              | $P_d$ =Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment. |
| Max Time to Trip | 5.0Sec.           | Device response time, at current of 5X Hold Current: 12.5A   |
| Resistance       | $R_{MIN}$         | 0.022 Ω $R_{MIN}$ =Minimum device resistance at 23°C prior to tripping.  |
|                  | $R1_{MAX}$        | 0.053 Ω $R1_{MAX}$ =Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.      |

\* Termination pad materials: Pure Tin

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## ELECTRICAL CHARACTERISTICS AT 23°C

### MPTR16V

| 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 5x $I_H$      | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                  |                 |                             |               | ohms                 | ohms       |
| MPTR16V250  | 2.5          | 4.7          | 5.0              | 100             | 16                          | 1.0           | 0.022                | 0.053      |
| MPTR16V300  | 3.0          | 5.1          | 2.0              | 100             | 16                          | 2.3           | 0.034                | 0.105      |
| MPTR16V400  | 4.0          | 6.8          | 3.5              | 100             | 16                          | 2.4           | 0.020                | 0.063      |
| MPTR16V500  | 5.0          | 8.5          | 3.6              | 100             | 16                          | 2.6           | 0.014                | 0.044      |
| MPTR16V600  | 6.0          | 10.2         | 5.8              | 100             | 16                          | 2.8           | 0.009                | 0.033      |
| MPTR16V700  | 7.0          | 11.9         | 8.0              | 100             | 16                          | 3.0           | 0.006                | 0.021      |
| MPTR16V800  | 8.0          | 13.6         | 9.0              | 100             | 16                          | 3.0           | 0.005                | 0.018      |
| MPTR16V900  | 9.0          | 15.3         | 12.0             | 100             | 16                          | 3.3           | 0.004                | 0.015      |
| MPTR16V1000 | 10.0         | 17.0         | 12.5             | 100             | 16                          | 3.3           | 0.003                | 0.012      |
| MPTR16V1100 | 11.0         | 18.7         | 13.5             | 100             | 16                          | 3.7           | 0.003                | 0.010      |
| MPTR16V1200 | 12.0         | 20.4         | 16.0             | 100             | 16                          | 4.2           | 0.002                | 0.009      |
| MPTR16V1400 | 14.0         | 23.8         | 20.0             | 100             | 16                          | 4.6           | 0.002                | 0.008      |

### MPTR16V-30V High Temperature (-40°C to 125°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 5x $I_H$      | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|              |              |              |                  |                 |                             |               | ohms                 | ohms       |
| MPTR30V050H  | 0.5          | 0.9          | 2.5              | 40              | 30                          | 0.9           | 0.4800               | 1.1000     |
| MPTR30V070H  | 0.7          | 1.4          | 3.2              | 40              | 30                          | 1.4           | 0.3000               | 0.8000     |
| MPTR30V100H  | 1.0          | 1.8          | 5.2              | 40              | 30                          | 1.4           | 0.1800               | 0.4300     |
| MPTR16V200H  | 2.0          | 3.8          | 3.0              | 100             | 16                          | 1.4           | 0.0450               | 0.1100     |
| MPTR16V300H  | 3.0          | 6.0          | 5.0              | 100             | 16                          | 3.0           | 0.0330               | 0.0790     |
| MPTR16V400H  | 4.0          | 7.0          | 5.0              | 100             | 16                          | 3.3           | 0.0240               | 0.0600     |
| MPTR16V450H  | 4.5          | 7.8          | 3.0              | 100             | 16                          | 3.6           | 0.0220               | 0.0540     |
| MPTR16V550H  | 5.5          | 10.0         | 6.0              | 100             | 16                          | 3.5           | 0.0150               | 0.0370     |
| MPTR16V600H  | 6.0          | 10.8         | 5.0              | 100             | 16                          | 4.1           | 0.0130               | 0.0320     |
| MPTR16V650H  | 6.5          | 12.0         | 5.5              | 100             | 16                          | 4.3           | 0.0110               | 0.0260     |
| MPTR16V700H  | 7.0          | 13.0         | 7.0              | 100             | 16                          | 4.0           | 0.0100               | 0.0250     |
| MPTR16V750H  | 7.5          | 13.1         | 7.0              | 100             | 16                          | 4.5           | 0.0094               | 0.0220     |
| MPTR16V800H  | 8.0          | 15.0         | 8.0              | 100             | 16                          | 4.2           | 0.0080               | 0.0200     |
| MPTR16V900H  | 9.0          | 16.5         | 10.0             | 100             | 16                          | 5.0           | 0.0074               | 0.0170     |
| MPTR16V1000H | 10.0         | 18.5         | 9.0              | 100             | 16                          | 5.3           | 0.0062               | 0.0150     |
| MPTR16V1100H | 11.0         | 20.0         | 11.0             | 100             | 16                          | 5.5           | 0.0055               | 0.0130     |
| MPTR16V1300H | 13.0         | 24.0         | 13.0             | 100             | 16                          | 6.9           | 0.0041               | 0.0100     |
| MPTR16V1400H | 14.0         | 27.0         | 13.0             | 100             | 16                          | 6.9           | 0.0030               | 0.0090     |
| MPTR16V1500H | 15.0         | 28.0         | 20.0             | 100             | 16                          | 7.0           | 0.0032               | 0.0092     |

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## ELECTRICAL CHARACTERISTICS AT 23°C (CONTINUED)

### MPTR30V

| 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 5x $I_H$       | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                   |                 |                             |               | ohms                 | ohms       |
| MPTR30V090  | 0.90         | 1.80         | 5.9               | 100             | 30                          | 0.6           | 0.070                | 0.22       |
| MPTR30V110  | 1.10         | 2.20         | 6.6               | 100             | 30                          | 0.7           | 0.050                | 0.17       |
| MPTR30V135  | 1.35         | 2.70         | 7.3               | 100             | 30                          | 0.8           | 0.040                | 0.13       |
| MPTR30V160  | 1.60         | 3.20         | 8.0               | 100             | 30                          | 0.9           | 0.030                | 0.11       |
| MPTR30V185  | 1.85         | 3.70         | 8.7               | 100             | 30                          | 1.0           | 0.030                | 0.09       |
| MPTR30V250  | 2.50         | 5.00         | 10.3              | 100             | 30                          | 1.2           | 0.020                | 0.07       |
| MPTR30V300  | 3.00         | 6.00         | 10.8              | 100             | 30                          | 2.0           | 0.020                | 0.08       |
| MPTR30V400  | 4.00         | 8.00         | 12.7              | 100             | 30                          | 2.5           | 0.010                | 0.05       |
| MPTR30V500  | 5.00         | 10.00        | 14.5              | 100             | 30                          | 3.0           | 0.010                | 0.05       |
| MPTR30V600  | 6.00         | 12.00        | 16.0              | 100             | 30                          | 3.5           | 0.005                | 0.04       |
| MPTR30V700  | 7.00         | 14.00        | 17.5              | 100             | 30                          | 3.8           | 0.005                | 0.03       |
| MPTR30V800  | 8.00         | 16.00        | 18.8              | 100             | 30                          | 4.0           | 0.005                | 0.02       |
| MPTR30V900  | 9.00         | 18.00        | 20.0              | 100             | 30                          | 4.2           | 0.005                | 0.02       |

### MPTR36V

| Part Number | Hold Current | Trip Current | Maximum Current | Rated Voltage               | Typical Power | Resistance Tolerance |            |
|-------------|--------------|--------------|-----------------|-----------------------------|---------------|----------------------|------------|
|             | $I_H$ , A    | $I_T$ , A    | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                 |                             |               | ohms                 | ohms       |
| MPTR36V050  | 0.50         | 1.10         | 40              | 36                          | 0.67          | 0.140                | 0.448      |
| MPTR36V075  | 0.75         | 1.50         | 40              | 36                          | 0.71          | 0.115                | 0.368      |
| MPTR36V090  | 0.90         | 1.80         | 40              | 36                          | 0.74          | 0.090                | 0.288      |
| MPTR36V120  | 1.20         | 2.30         | 40              | 36                          | 0.78          | 0.074                | 0.180      |
| MPTR36V135  | 1.35         | 2.50         | 40              | 36                          | 0.84          | 0.059                | 0.143      |
| MPTR36V160  | 1.60         | 2.75         | 40              | 36                          | 0.86          | 0.041                | 0.131      |
| MPTR36V190  | 1.90         | 3.00         | 40              | 36                          | 0.90          | 0.045                | 0.092      |
| MPTR36V220  | 2.20         | 3.50         | 40              | 36                          | 0.95          | 0.025                | 0.080      |
| MPTR36V250  | 2.50         | 4.00         | 40              | 36                          | 0.99          | 0.020                | 0.064      |

### MPTR60V

| 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 5x $I_H$       | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                   |                 |                             |               | ohms                 | ohms       |
| MPTR60V005  | 0.05         | 0.10         | 5.0               | 40              | 60                          | 0.26          | 7.30                 | 20.0       |
| MPTR60V010  | 0.10         | 0.20         | 4.0               | 40              | 60                          | 0.38          | 2.50                 | 7.50       |
| MPTR60V017  | 0.17         | 0.34         | 3.0               | 40              | 60                          | 0.48          | 2.00                 | 8.00       |
| MPTR60V020  | 0.20         | 0.40         | 2.2               | 40              | 60                          | 0.41          | 1.83                 | 4.40       |
| MPTR60V025  | 0.25         | 0.50         | 2.5               | 40              | 60                          | 0.45          | 1.25                 | 3.00       |
| MPTR60V030  | 0.30         | 0.60         | 3.0               | 40              | 60                          | 0.49          | 0.88                 | 2.10       |
| MPTR60V040  | 0.40         | 0.80         | 3.8               | 40              | 60                          | 0.56          | 0.55                 | 1.29       |
| MPTR60V050  | 0.50         | 1.00         | 4.0               | 40              | 60                          | 0.77          | 0.50                 | 1.17       |
| MPTR60V065  | 0.65         | 1.30         | 5.3               | 40              | 60                          | 0.88          | 0.31                 | 0.72       |

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## ELECTRICAL CHARACTERISTICS AT 23°C (CONTINUED)

### MPTR60V

| 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 5x $I_H$      | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                  |                 |                             |               | ohms                 | ohms       |
| MPTR60V075  | 0.75         | 1.50         | 6.3              | 40              | 60                          | 0.92          | 0.25                 | 0.60       |
| MPTR60V090  | 0.90         | 1.80         | 7.2              | 40              | 60                          | 0.99          | 0.20                 | 0.47       |
| MPTR60V110  | 1.10         | 2.20         | 8.2              | 40              | 60                          | 1.50          | 0.15                 | 0.38       |
| MPTR60V135  | 1.35         | 2.70         | 9.6              | 40              | 60                          | 1.70          | 0.12                 | 0.30       |
| MPTR60V160  | 1.60         | 3.20         | 11.4             | 40              | 60                          | 1.90          | 0.09                 | 0.22       |
| MPTR60V185  | 1.85         | 3.70         | 12.6             | 40              | 60                          | 2.10          | 0.08                 | 0.19       |
| MPTR60V250  | 2.50         | 5.00         | 15.6             | 40              | 60                          | 2.50          | 0.05                 | 0.13       |
| MPTR60V300  | 3.00         | 6.00         | 19.8             | 40              | 60                          | 2.80          | 0.04                 | 0.10       |
| MPTR60V375  | 3.75         | 7.50         | 24.0             | 40              | 60                          | 3.20          | 0.03                 | 0.08       |

### MPTR90V

| 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 5x $I_H$      | $I_{MAX}$ , A   | $V_{MAX}$ , V <sub>DC</sub> | $P_d$ , W     | $R_{MIN}$            | $R1_{MAX}$ |
|             |              |              |                  |                 |                             |               | ohms                 | ohms       |
| MPTR90V010  | 0.10         | 0.20         | 4.0              | 40              | 72/90                       | 0.38          | 2.50                 | 7.50       |
| MPTR90V015  | 0.15         | 0.35         | 10.0             | 40              | 72/90                       | 0.70          | 2.40                 | 7.00       |
| MPTR90V017  | 0.17         | 0.34         | 3.0              | 40              | 72/90                       | 0.48          | 2.00                 | 8.00       |
| MPTR90V020  | 0.20         | 0.40         | 2.2              | 40              | 72/90                       | 0.41          | 1.83                 | 4.40       |
| MPTR90V025  | 0.25         | 0.50         | 2.5              | 40              | 72/90                       | 0.45          | 1.25                 | 3.00       |
| MPTR90V030  | 0.30         | 0.60         | 3.0              | 40              | 72/90                       | 0.49          | 0.88                 | 2.10       |
| MPTR90V035  | 0.35         | 0.75         | 10.0             | 40              | 72/90                       | 1.30          | 0.70                 | 2.50       |
| MPTR90V040  | 0.40         | 0.80         | 3.8              | 40              | 72/90                       | 0.56          | 0.55                 | 1.29       |
| MPTR90V050  | 0.50         | 1.00         | 4.0              | 40              | 72/90                       | 0.77          | 0.50                 | 1.17       |
| MPTR90V055  | 0.55         | 1.20         | 10.0             | 40              | 72/90                       | 1.50          | 0.40                 | 1.50       |
| MPTR90V065  | 0.65         | 1.30         | 5.3              | 40              | 72/90                       | 0.88          | 0.31                 | 0.72       |
| MPTR90V075  | 0.75         | 1.50         | 6.3              | 40              | 72/90                       | 0.92          | 0.25                 | 0.60       |
| MPTR90V090  | 0.90         | 1.80         | 7.2              | 40              | 72/90                       | 0.99          | 0.20                 | 0.47       |
| MPTR90V110  | 1.10         | 2.20         | 8.2              | 40              | 72/90                       | 1.50          | 0.15                 | 0.38       |
| MPTR90V135  | 1.35         | 2.70         | 9.6              | 40              | 72/90                       | 1.70          | 0.12                 | 0.30       |
| MPTR90V160  | 1.60         | 3.20         | 11.4             | 40              | 72/90                       | 1.90          | 0.09                 | 0.22       |
| MPTR90V185  | 1.85         | 3.70         | 12.6             | 40              | 72/90                       | 2.10          | 0.08                 | 0.19       |
| MPTR90V250  | 2.50         | 5.00         | 15.6             | 40              | 72/90                       | 2.50          | 0.05                 | 0.13       |
| MPTR90V300  | 3.00         | 6.00         | 19.8             | 40              | 72/90                       | 2.80          | 0.04                 | 0.10       |
| MPTR90V375  | 3.75         | 7.50         | 24.0             | 40              | 72/90                       | 3.20          | 0.03                 | 0.08       |

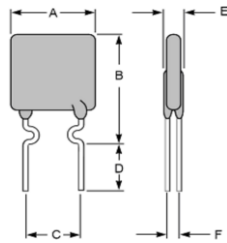
# PTC Resettable Fuse Radial Leded Type

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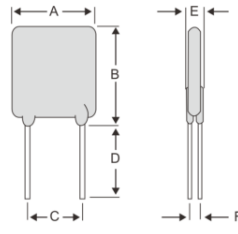
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## DIMENSIONS

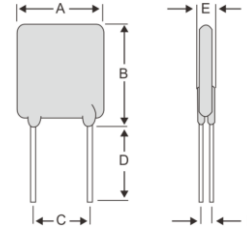
### MPTR16V



**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 2**  
Lead Size: 20AWG  
Φ 0.81 mm Diameter



**Figure 3**  
Lead Size: 18AWG  
Φ 1.0 mm Diameter

| Part Number | Figure | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|-------------|--------|---------|---------|---------|---------|---------|---------|
|             |        | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR16V250  | 1      | 8.9     | 12.8    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V300  | 2      | 7.1     | 11.0    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V400  | 2      | 8.9     | 12.8    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V500  | 2      | 10.4    | 14.3    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V600  | 2      | 10.7    | 17.1    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V700  | 2      | 11.2    | 19.7    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V800  | 2      | 12.7    | 20.9    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V900  | 2      | 14.0    | 21.7    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V1000 | 2      | 16.5    | 24.1    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V1100 | 2      | 17.5    | 26.0    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V1200 | 3      | 17.5    | 28.0    | 10.2    | 7.6     | 3.6     | 1.4     |
| MPTR16V1400 | 3      | 27.9    | 27.9    | 10.2    | 7.6     | 3.6     | 1.4     |

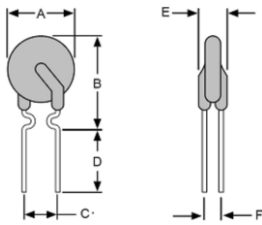
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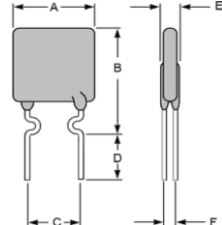
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## DIMENSIONS (CONTINUED)

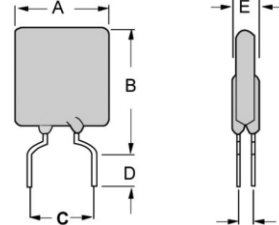
### MPTR16V-30V High Temperature (-40°C to 125°C)



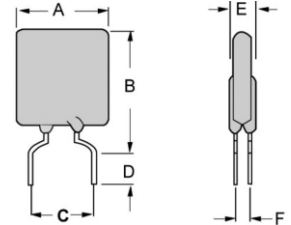
**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 2**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 3**  
Lead Size: 20AWG  
Φ 0.81 mm Diameter



**Figure 4**  
Lead Size: 18AWG  
Φ 1.00 mm Diameter

| Part Number  | Figure | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|--------------|--------|---------|---------|---------|---------|---------|---------|
|              |        | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR30V050H  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR30V070H  | 2      | 6.9     | 10.8    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR30V100H  | 1      | 9.7     | 13.6    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V200H  | 1      | 9.4     | 14.4    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V300H  | 3      | 8.8     | 13.8    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V400H  | 3      | 10.0    | 15.0    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V450H  | 3      | 10.4    | 15.6    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V550H  | 3      | 11.2    | 18.9    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V600H  | 3      | 11.2    | 21.0    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V650H  | 3      | 12.7    | 22.2    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V700H  | 3      | 14.0    | 21.9    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V750H  | 3      | 14.0    | 23.5    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V800H  | 3      | 16.5    | 22.5    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V900H  | 3      | 16.5    | 25.7    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR16V1000H | 3      | 17.5    | 26.5    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR16V1100H | 3      | 21.0    | 26.1    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR16V1300H | 4      | 23.5    | 28.7    | 10.2    | 7.6     | 3.6     | 1.4     |
| MPTR16V1400H | 4      | 23.5    | 28.7    | 10.2    | 7.6     | 3.6     | 1.4     |
| MPTR16V1500H | 4      | 23.5    | 28.7    | 10.2    | 7.6     | 3.6     | 1.4     |

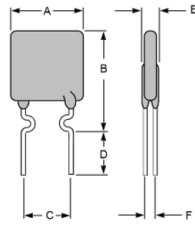
# PTC Resettable Fuse Radial Leded Type

MPTR Series

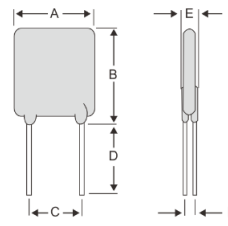
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## DIMENSIONS (CONTINUED)

### MPTR30V



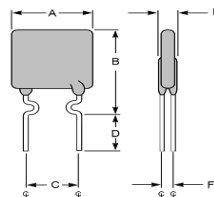
**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 2**  
Lead Size: 20AWG  
Φ 0.81 mm Diameter

| Part Number | Figure | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|-------------|--------|---------|---------|---------|---------|---------|---------|
|             |        | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR30V090  | 1      | 7.4     | 12.2    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V110  | 1      | 7.4     | 14.2    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V135  | 1      | 8.9     | 13.5    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V160  | 1      | 8.9     | 15.2    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V185  | 1      | 10.2    | 15.7    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V250  | 1      | 11.4    | 18.3    | 5.1     | 7.6     | 3.0     | 0.9     |
| MPTR30V300  | 2      | 11.4    | 17.3    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR30V400  | 2      | 14.0    | 20.1    | 5.1     | 7.6     | 3.0     | 1.2     |
| MPTR30V500  | 2      | 14.0    | 24.9    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR30V600  | 2      | 16.5    | 24.9    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR30V700  | 2      | 19.1    | 26.7    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR30V800  | 2      | 21.6    | 29.2    | 10.2    | 7.6     | 3.0     | 1.2     |
| MPTR30V900  | 2      | 24.1    | 29.7    | 10.2    | 7.6     | 3.0     | 1.2     |

### MPTR36V



**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter

| Part Number | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|-------------|---------|---------|---------|---------|---------|---------|
|             | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR36V050  | 7.4     | 12.2    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V075  | 7.4     | 12.2    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V090  | 7.4     | 12.2    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V120  | 7.4     | 12.2    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V135  | 7.4     | 14.2    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V160  | 7.4     | 14.0    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V190  | 9.0     | 13.5    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V220  | 10.0    | 17.0    | 5.1     | 7.6     | 3.0     | 1.1     |
| MPTR36V250  | 10.0    | 19.5    | 5.1     | 7.6     | 3.0     | 1.1     |

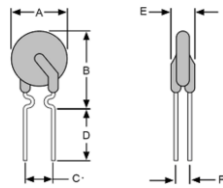
# PTC Resettable Fuse Radial Leded Type

MPTR Series

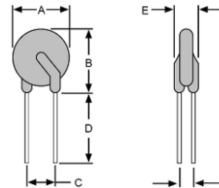
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## DIMENSIONS (CONTINUED)

MPTR60V



**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 2**  
Lead Size: 20AWG  
Φ 0.81 mm Diameter

| Part Number | Figure | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|-------------|--------|---------|---------|---------|---------|---------|---------|
|             |        | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR60V005  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V010  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V017  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V020  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V025  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V030  | 1      | 7.4     | 13.0    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V040  | 1      | 7.6     | 13.5    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V050  | 1      | 7.9     | 13.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V065  | 1      | 9.7     | 14.5    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V075  | 1      | 10.4    | 15.2    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V090  | 1      | 11.7    | 15.8    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR60V110  | 2      | 13.0    | 18.0    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR60V135  | 2      | 14.5    | 19.6    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR60V160  | 2      | 16.3    | 21.3    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR60V185  | 2      | 17.8    | 22.9    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR60V250  | 2      | 21.3    | 26.4    | 10.2    | 7.6     | 3.1     | 1.4     |
| MPTR60V300  | 2      | 24.9    | 30.0    | 10.2    | 7.6     | 3.1     | 1.4     |
| MPTR60V375  | 2      | 28.5    | 33.5    | 10.2    | 7.6     | 3.1     | 1.4     |

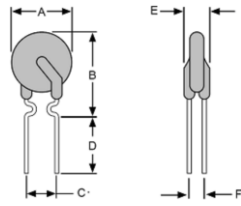
# PTC Resettable Fuse Radial Leded Type

MPTR Series

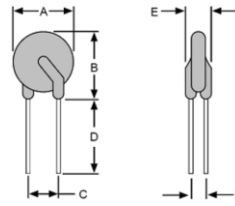
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## DIMENSIONS (CONTINUED)

MPTR90V



**Figure 1**  
Lead Size: 24AWG  
Φ 0.51 mm Diameter



**Figure 2**  
Lead Size: 20AWG  
Φ 0.81 mm Diameter

| Part Number | Figure | A (mm)  | B (mm)  | C (mm)  | D (mm)  | E (mm)  | F (mm)  |
|-------------|--------|---------|---------|---------|---------|---------|---------|
|             |        | Maximum | Maximum | Typical | Minimum | Maximum | Typical |
| MPTR90V010  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V015  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V017  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V020  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V025  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V030  | 1      | 7.4     | 13.0    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V035  | 1      | 7.4     | 12.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V040  | 1      | 7.6     | 13.5    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V050  | 1      | 7.9     | 13.7    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V055  | 1      | 9.7     | 14.0    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V065  | 1      | 9.7     | 14.5    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V075  | 1      | 10.4    | 15.2    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V090  | 1      | 11.7    | 15.8    | 5.1     | 7.6     | 3.1     | 1.1     |
| MPTR90V110  | 2      | 13.0    | 18.0    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR90V135  | 2      | 14.5    | 19.6    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR90V160  | 2      | 16.3    | 21.3    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR90V185  | 2      | 17.8    | 22.9    | 5.1     | 7.6     | 3.1     | 1.4     |
| MPTR90V250  | 2      | 21.3    | 26.4    | 10.2    | 7.6     | 3.1     | 1.4     |
| MPTR90V300  | 2      | 24.9    | 30.0    | 10.2    | 7.6     | 3.1     | 1.4     |
| MPTR90V375  | 2      | 28.5    | 33.5    | 10.2    | 7.6     | 3.1     | 1.4     |

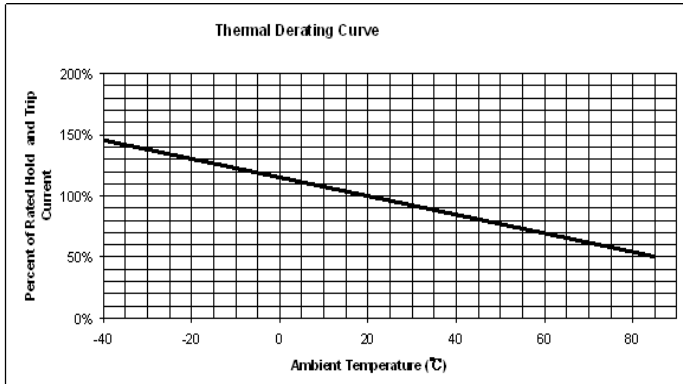
# PTC Resettable Fuse Radial Leaded Type

MPTR Series

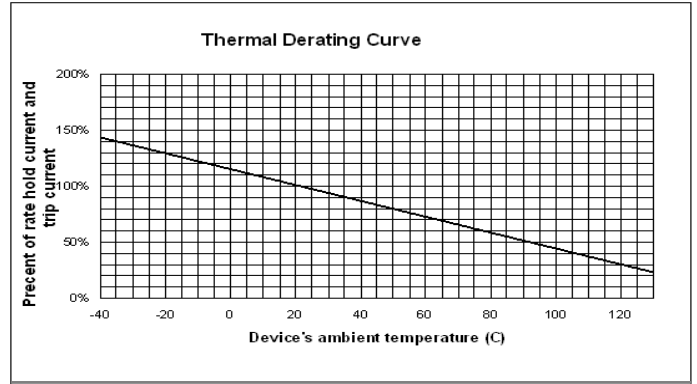
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## THERMAL DERATING CURVE

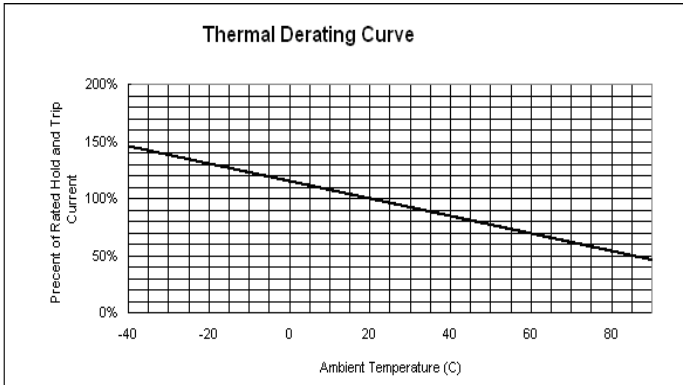
MPTR16V



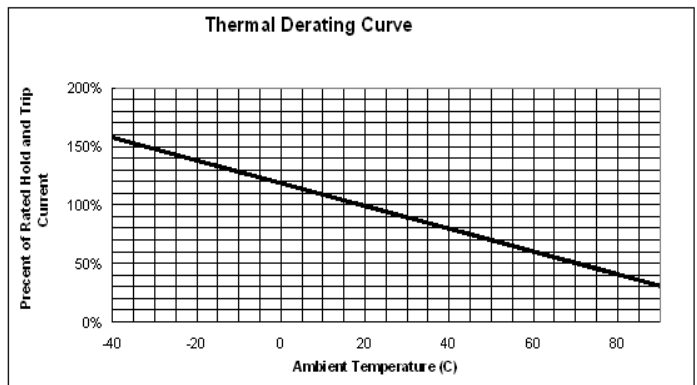
MPTR16V-30V High Temperature (-40°C to 125°C)



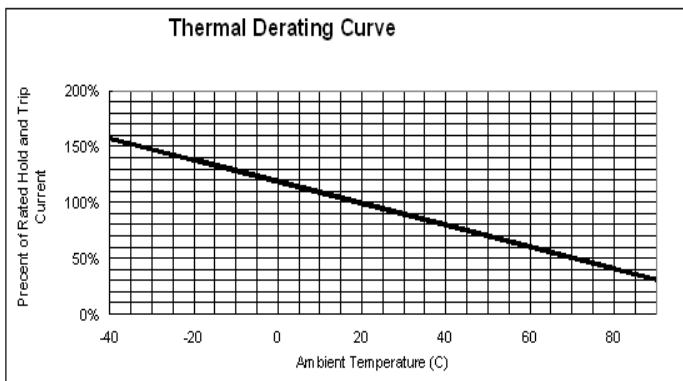
MPTR30V



MPTR60V



MPTR90V



# PTC Resettable Fuse Radial Leaded Type

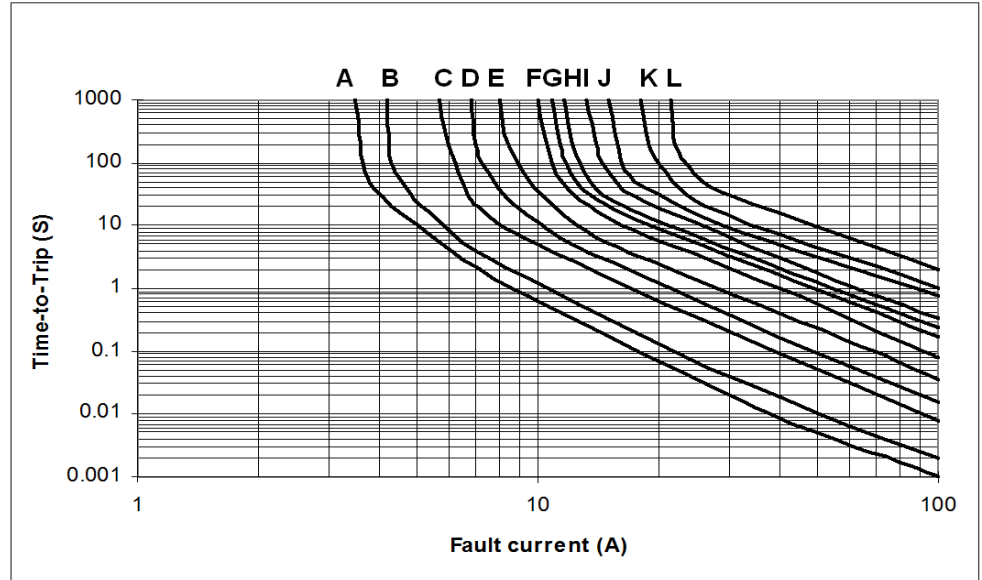
MPTR Series

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## TYPICAL TIME-TO-TRIP AT 23°C

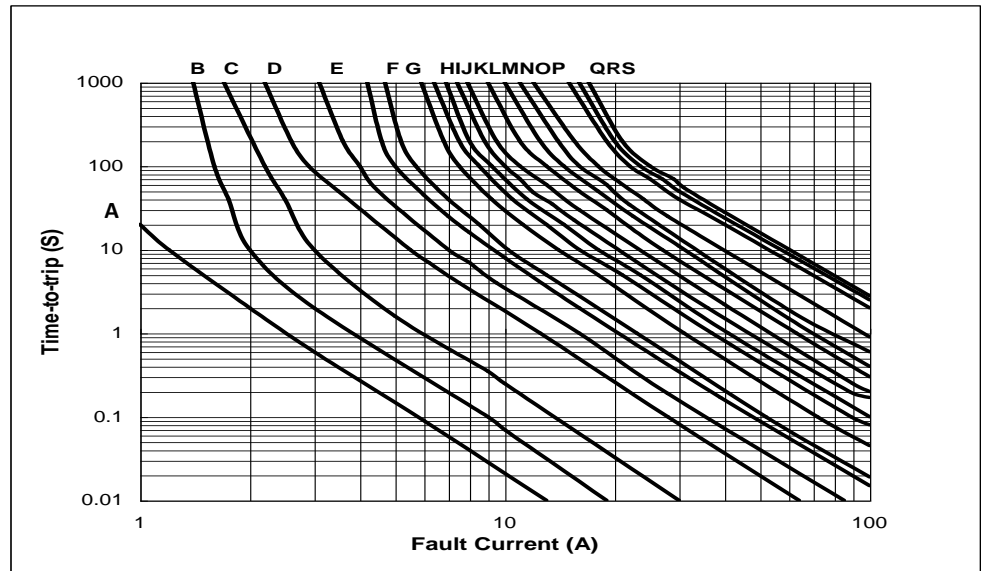
### MPTR16V

- A = MPTR16V250
- B = MPTR16V300
- C = MPTR16V400
- D = MPTR16V500
- E = MPTR16V600
- F = MPTR16V700
- G = MPTR16V800
- H = MPTR16V900
- I = MPTR16V1000
- J = MPTR16V1100
- K = MPTR16V1200
- L = MPTR16V1400



### MPTR16V-30V High Temperature (-40°C to 125°C)

- A = MPTR30V050H
- B = MPTR30V070H
- C = MPTR30V100H
- D = MPTR16V200H
- E = MPTR16V300H
- F = MPTR16V400H
- G = MPTR16V450H
- H = MPTR16V550H
- I = MPTR16V600H
- J = MPTR16V650H
- K = MPTR16V700H
- L = MPTR16V750H
- M = MPTR16V800H
- N = MPTR16V900H
- O = MPTR16V1000H
- P = MPTR16V1100H
- Q = MPTR16V1300H
- R = MPTR16V1400H
- S = MPTR16V1500H



# PTC Resettable Fuse Radial Leaded Type

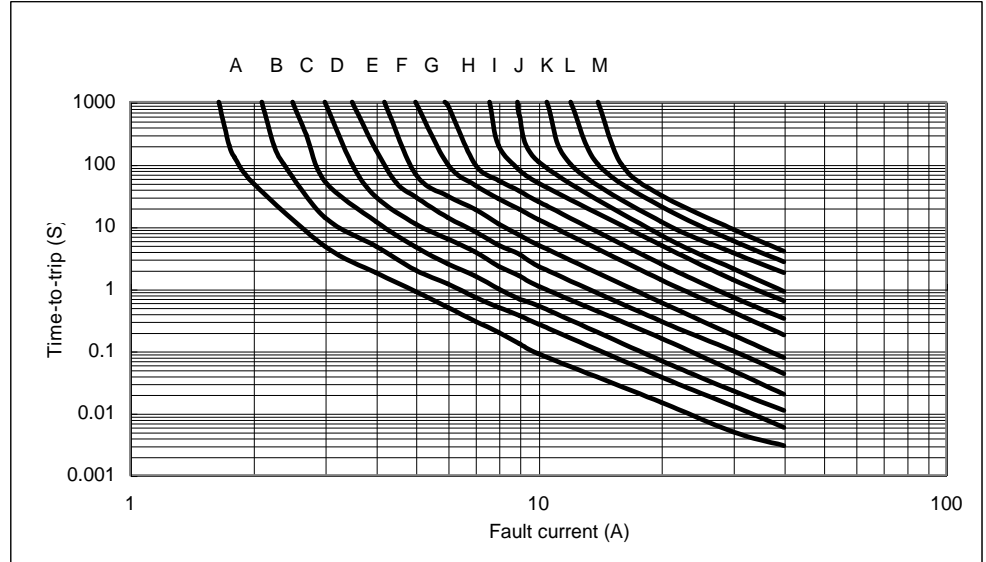
MPTR Series

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## TYPICAL TIME-TO-TRIP AT 23°C (CONTINUED)

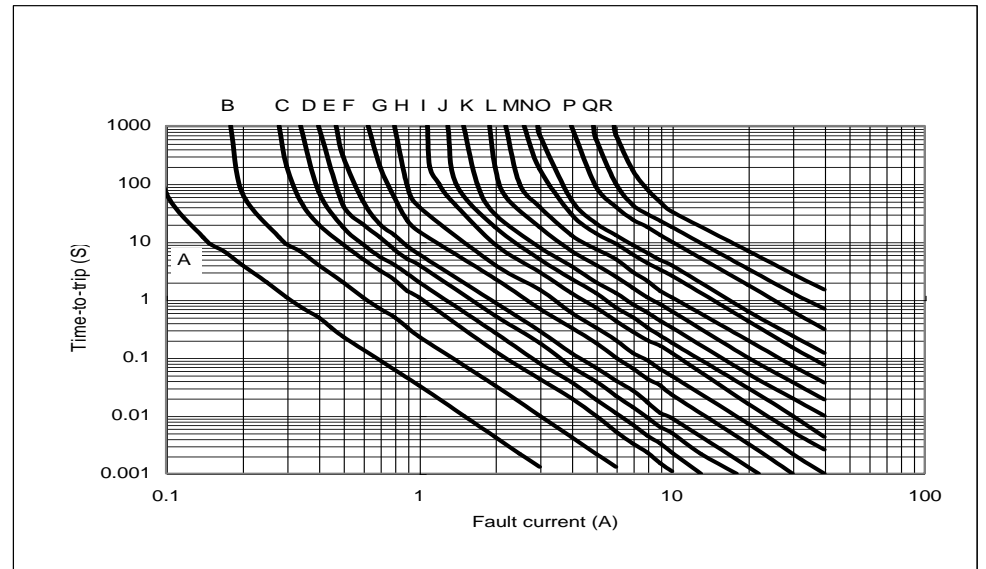
### MPTR30V

- A = MPTR30V090
- B = MPTR30V110
- C = MPTR30V135
- D = MPTR30V160
- E = MPTR30V185
- F = MPTR30V250
- G = MPTR30V300
- H = MPTR30V400
- I = MPTR30V500
- J = MPTR30V600
- K = MPTR30V700
- L = MPTR30V800
- M = MPTR30V900



### MPTR60V

- A = MPTR60V005
- B = MPTR60V010
- C = MPTR60V017
- D = MPTR60V020
- E = MPTR60V025
- F = MPTR60V030
- G = MPTR60V040
- H = MPTR60V050
- I = MPTR60V065
- J = MPTR60V075
- K = MPTR60V090
- L = MPTR60V110
- M = MPTR60V135
- N = MPTR60V160
- O = MPTR60V185
- P = MPTR60V250
- Q = MPTR60V300
- R = MPTR60V375



# PTC Resettable Fuse Radial Leaded Type

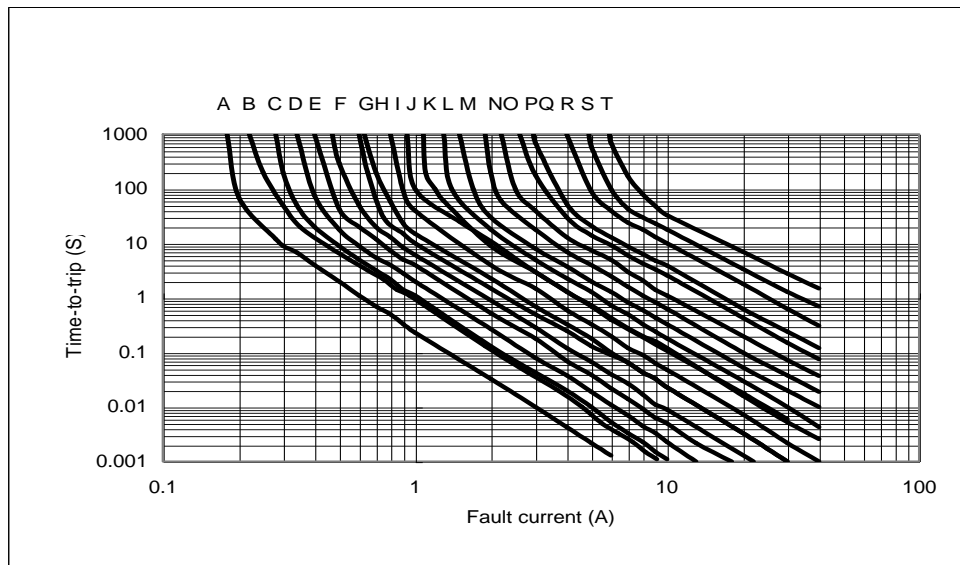
MPTR Series

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## TYPICAL TIME-TO-TRIP AT 23°C (CONTINUED)

### MPTR90V

A = MPTR90V010  
B = MPTR90V015  
C = MPTR90V017  
D = MPTR90V020  
E = MPTR90V025  
F = MPTR90V030  
G = MPTR90V035  
H = MPTR90V040  
I = MPTR90V050  
J = MPTR90V055  
K = MPTR90V065  
L = MPTR90V075  
M = MPTR90V090  
N = MPTR90V110  
O = MPTR90V135  
P = MPTR90V160  
Q = MPTR90V185  
R = MPTR90V250  
S = MPTR90V300  
T = MPTR90V375




## 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

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