

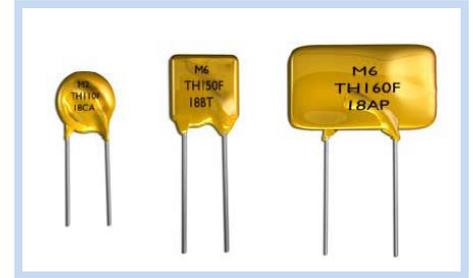
PTC Resettable Fuse Radial Leaded Type

MPTH Series

MERITEK

FEATURE

- Operation Current: 80mA to 400mA
- Maximum Interrupt Voltage: 250V / 600V
- Temperature Range: -40°C to 85°C
- Low hold current Solid State
- Wide variety of electronic applications
- UL/cUL safety approved: certification No: E223037
- TUV safety approved: certification No: R50223766



PART NUMBERING SYSTEM

MPTH **250V** **080** **V**
(1) (2) (3) (4)



No	Item	Digit	Description	Series Reference
(1)	Meritek Series	MPTH	Polymer Resettable Fuse Series	Radial Lead Type
(2)	Voltage Rating	250V	250V: 250VDC	300V: 300VDC
(3)	Current Rating	080	080: 80mA	110: 110mA,
(4)	Internal Code	V	V: High Operating Voltage	X: Round Type, M: Special Type

ELECTRICAL CHARACTERISTICS AT 23°C

Item	Value	Characteristics
Hold Current	0.08A	I_H =Hold current-maximum current at which the device will not trip at 23°C still air.
Trip Current	0.16A	I_T =Trip current-minimum current at which the device will always trip at 23°C still air.
Rated Voltage	60V _{DC}	V_{MAX} =Maximum voltage device can withstand without damage at its rated current (I_{MAX}).
Max Current	3.0A	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	4.0Sec.	Device response time, at current 0.35A
Resistance	R_{MIN}	14.0 Ω R_{MIN} =Minimum device resistance at 23°C prior to tripping.
	$R1_{MAX}$	33.0 Ω $R1_{MAX}$ =Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

* Physical specifications:

- Soldering characteristics: MIL-STD-202, Method 208E.
 - Insulating coating: Flame retardant epoxy, meet UL-94V-0 requirement.
 - Lead material: Tin plated copper, 22 AWG.
- * All MPTH products are designed to assist equipment to pass ITU, UL1950 or GR1089 specification.
 * MPTH150-600M, MPTH160-600V meet UL497A Overvoltage and Endurance Conditioning requirements for Thermistor type component.
 * CAUTION: MPTH devices are not intended for continuous use of Line Voltage such as 120V_{AC} ~ 600V_{AC} and above.

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ELECTRICAL CHARACTERISTICS AT 23°C

Part Number	Hold Current	Trip Current	Maximum Current	Max Oper. Voltage	Max Int. Voltage	Typical Power	Max. Time to trip		Resistance	
							Current	Time	R _{MIN}	R _{1MAX}
							A	Sec.	ohms	ohms
MPTH250V080V	0.08	0.16	3.0	100	250	1.0	0.35	4.0	14.0	33.0
MPTH250V110V	0.11	0.22	3.0	100	250	1.0	1.00	2.0	5.00	16.0
MPTH250V120V	0.12	0.24	3.0	100	250	1.0	1.00	2.0	4.00	16.0
MPTH250V145V	0.15	0.29	3.0	100	250	1.0	1.00	2.5	3.00	12.0
MPTH250V180X	0.18	0.65	10.0	100	250	1.5	3.00	2.0	0.80	4.0
MPTH600V150M	0.15	0.30	3.0	250	600	1.0	1.00	4.0	6.00	17.0
MPTH600V160M	0.16	0.32	3.0	250	600	1.0	1.00	7.0	4.00	16.0
MPTH600V160V	0.16	0.32	3.0	250	600	1.0	1.00	7.0	4.00	18.0
MPTH600V200V	0.20	0.40	3.0	250	600	1.0	1.00	12.0	4.00	13.5
MPTH600V250V	0.25	0.86	3.0	250	600	1.0	3.00	1.0	1.00	7.0
MPTH600V400	0.40	1.00	3.0	60	600	1.0	3.00	4.0	0.95	1.9

DIMENSIONS

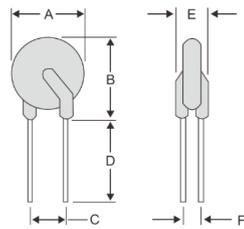


Figure 1
Lead Size: 22AWG
Φ 0.65 mm Diameter

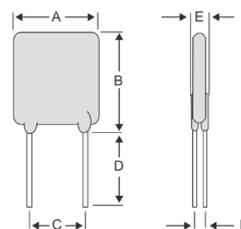


Figure 2
Lead Size: 22AWG
Φ 0.65 mm Diameter

Part Number	Figure	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
		Maximum	Maximum	Typical	Minimum	Maximum
MPTH250V080V	1	5.8	9.6	5.0	4.7	4.6
MPTH250V110V	1	6.8	9.9	5.0	4.7	4.6
MPTH250V120V	2	6.5	11	5.0	4.7	4.6
MPTH250V145V	2	6.5	11	5.0	4.7	4.6
MPTH250V180X	1	9.0	12	5.0	4.7	3.8
MPTH600V150M	2	9.0	12.5	5.0	4.7	4.6
MPTH600V160M	2	9.0	12.5	5.0	4.7	4.6
MPTH600V160V	2	16.0	12.6	5.0	4.7	6
MPTH600V200V	2	12.0	14	5.0	4.7	6
MPTH600V250V	2	12.0	15	5.0	4.7	6
MPTH600V400	2	15.0	14.5	5.0	4.7	6

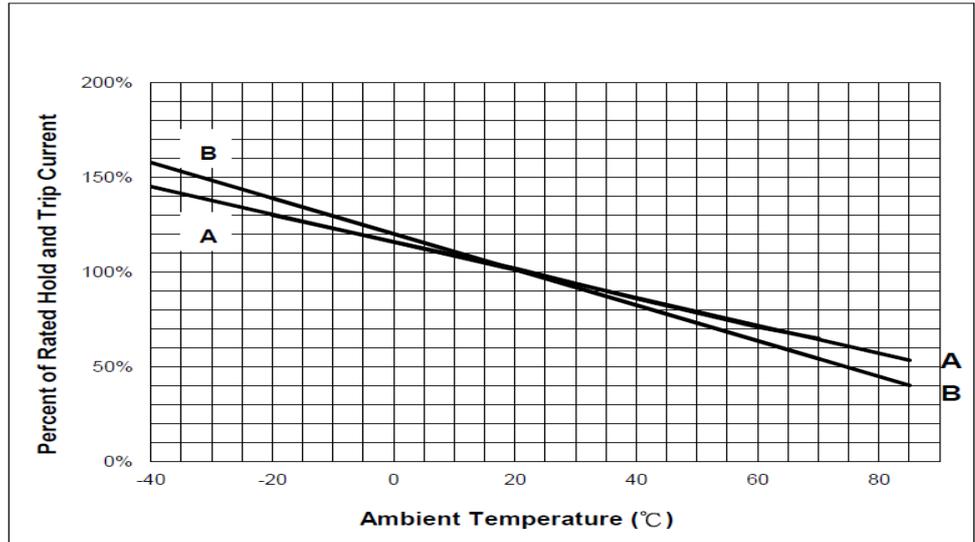
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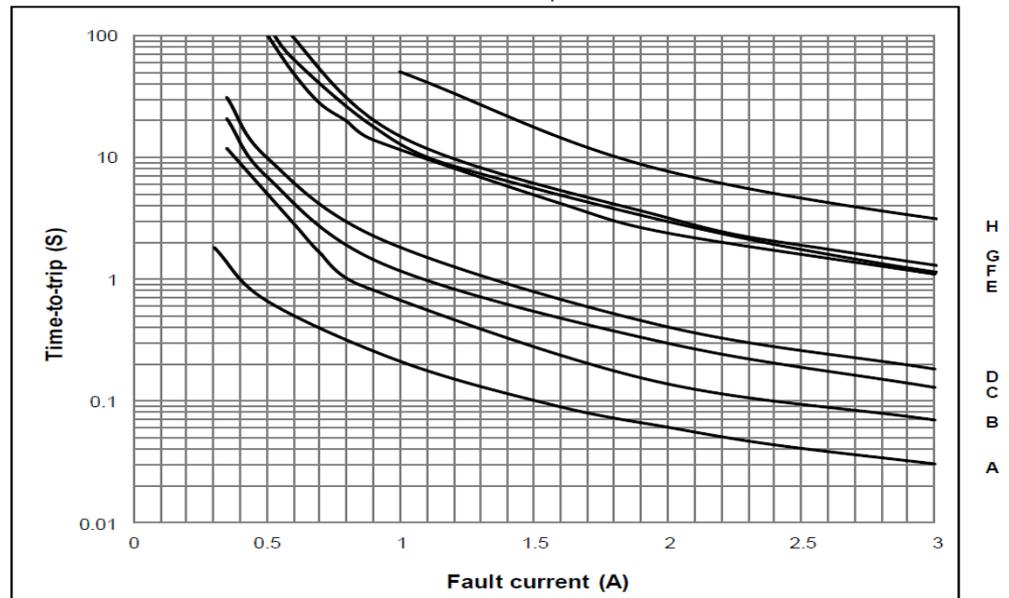
THERMAL DERATING CURVE

A: MPTH250V180X
B: All other MPTH Devices



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

A = MPTH250V080V
B = MPTH250V110V
C = MPTH250V120V
D = MPTH250V145V
E = MPTH600V160V
F = MPTH600V200V
G = MPTH600V250V
H = MPTH600V400



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: Specification subject to change without notice.