

Polymeric PTC



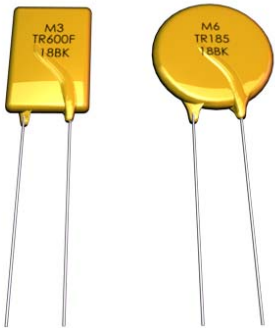
MPTR Series

MERITEK

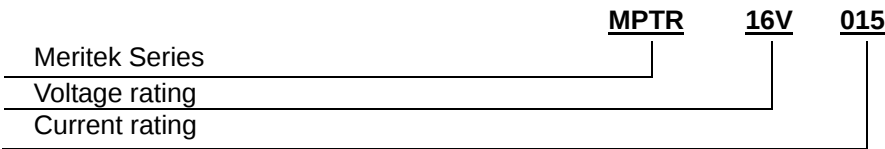
Feature and Applications

UL E223037

- ROHS Compliant (Lead Free) Product
- Wide variety of electronic applications
- Radial leaded type
- Operation Current: Up to 14.0A
- Maximum Voltage: 16V to 90V
- Temperature Range: -40°C to 125°C



PART NUMBERING SYSTEM



Electrical Characteristics (23°C)

MPTR16V

Part Number	Hold Current	Trip Current	Max.Time to trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
							Rmin	R1max
	I _H , A	I _T , A	at 5x I _H	I MAX, A	V MAX, Vdc	Pd, W	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
MPTR16V500K	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

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})

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

Pd=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{min}=Minimum device resistance at 23°C prior to tripping.

R1_{MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

Product Dimensions (Millimeters)

MPTR16V

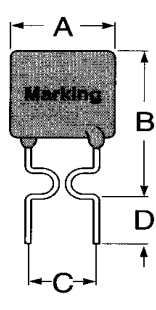


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

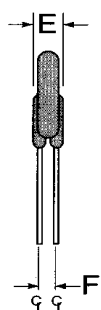


Figure 2
Lead Size: 20AWG
Φ 0.81 mm Diameter

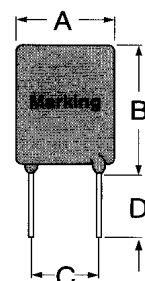
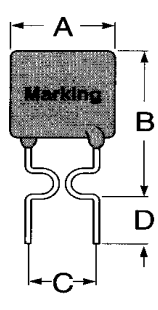


Figure 3
Lead Size: 20AWG
Φ 0.81 mm Diameter

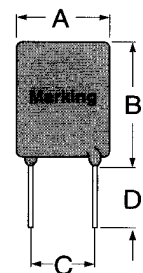
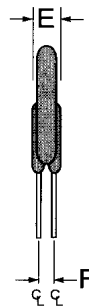
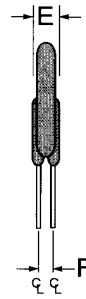


Figure 4
Lead Size: 18AWG
Φ 1.0 mm Diameter



Part Number	Fig	A	B	C	D	E	F
		Maximum	Maximum	Typical	Minimum	Maximum	Typical
MPTR16V250	1	8.9	12.8	5.1	7.6	3.0	1.2
MPTR16V300	3	7.1	11.0	5.1	7.6	3.0	1.2
MPTR16V400	3	8.9	12.8	5.1	7.6	3.0	1.2
MPTR16V500	3	10.4	14.3	5.1	7.6	3.0	1.2
MPTR16V500K	2	10.4	18.7	5.1	7.6	3.0	1.2
MPTR16V600	3	10.7	17.1	5.1	7.6	3.0	1.2
MPTR16V700	3	11.2	19.7	5.1	7.6	3.0	1.2
MPTR16V800	3	12.7	20.9	5.1	7.6	3.0	1.2
MPTR16V900	3	14.0	21.7	5.1	7.6	3.0	1.2
MPTR16V1000	3	16.5	24.1	5.1	7.6	3.0	1.2
MPTR16V1100	3	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

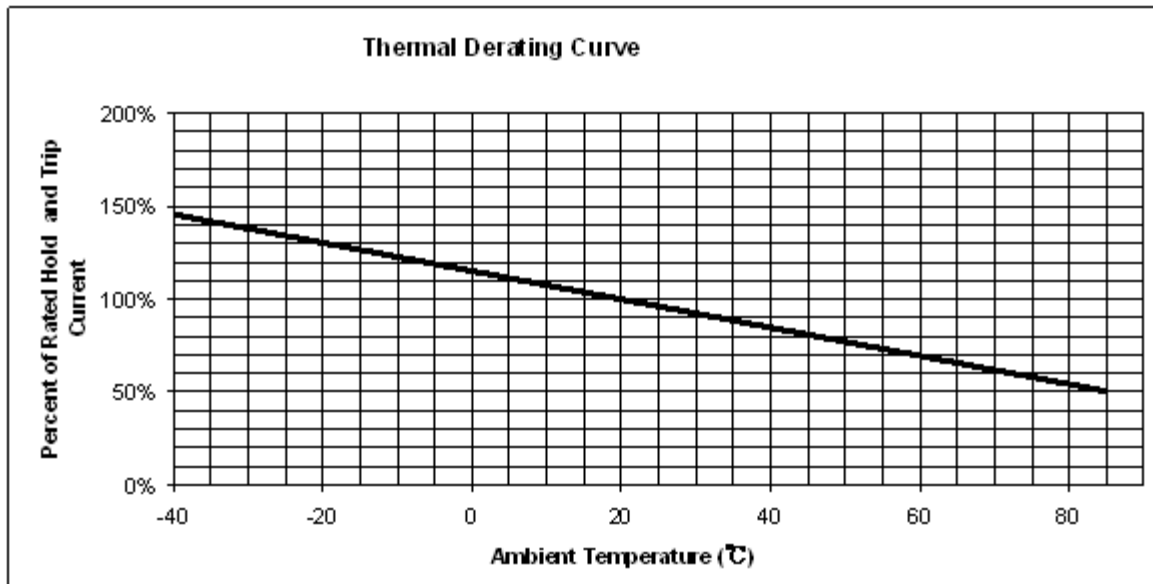
Polymeric PTC



MPTR Series

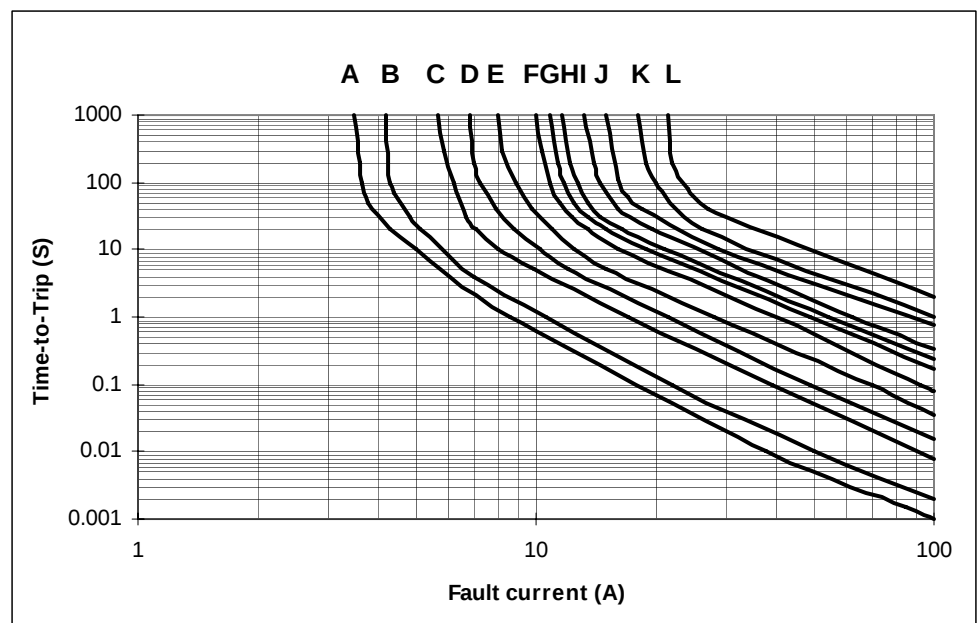
MERITEK

Thermal Derating Curve



Typical Time-To-Trip at 23°C

A = MPTR16V250
B = MPTR16V300
C = MPTR16V400
D = MPTR16V500 and
MPTR16V500K
E = MPTR16V600
F = MPTR16V700
G = MPTR16V800
H = MPTR16V900
I = MPTR16V1000
J = MPTR16V1100
K = MPTR16V1200
L = MPTR16V1400





Electrical Characteristics (23°)

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 5xI _H , Sec	I _{max} , A	V _{max} , V _{DC}	P _d , W	R _{min}	R _{1max} .
	I _H , A	I _T , A	at 5xI _H , Sec	I _{max} , A	V _{max} , V _{DC}	P _d , W	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

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})

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

P_d=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R_{1MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

Product Dimensions (Millimeters)

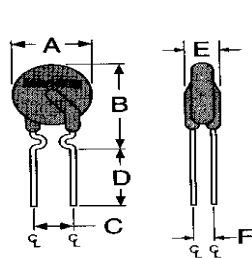


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

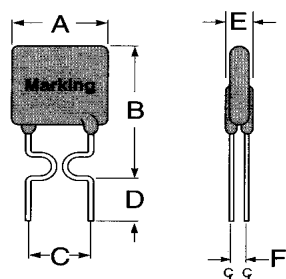


Figure 2
Lead Size: 20AWG
Φ 0.81 mm Diameter

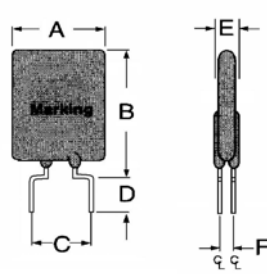


Figure 3
Lead Size: 20AWG
Φ 0.81 mm Diameter

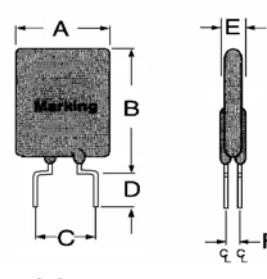


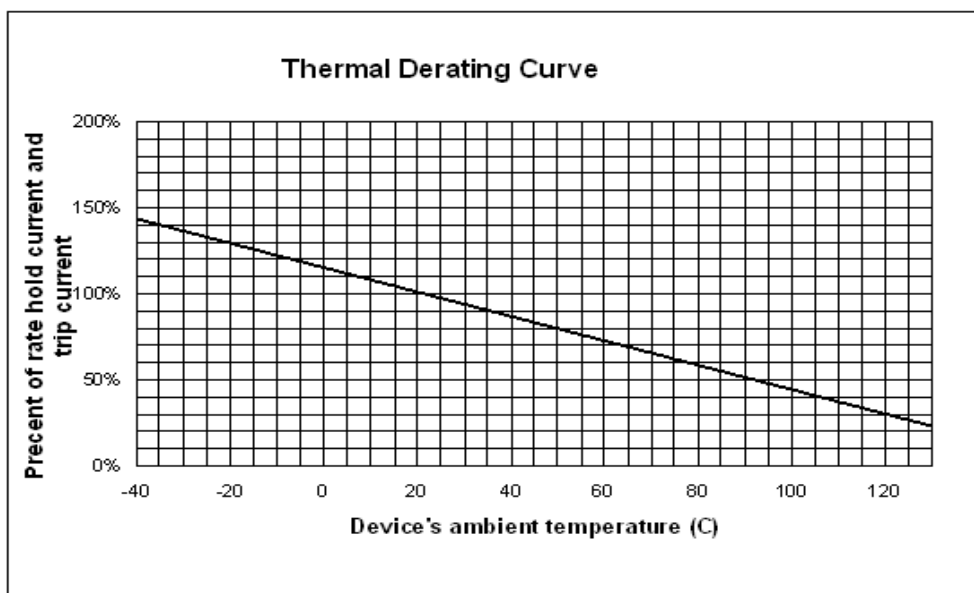
Figure 4
Lead Size: 18AWG
Φ 1.0 mm Diameter

MPTR30V

Part Number	Figure	A	B	C	D	E	F
		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

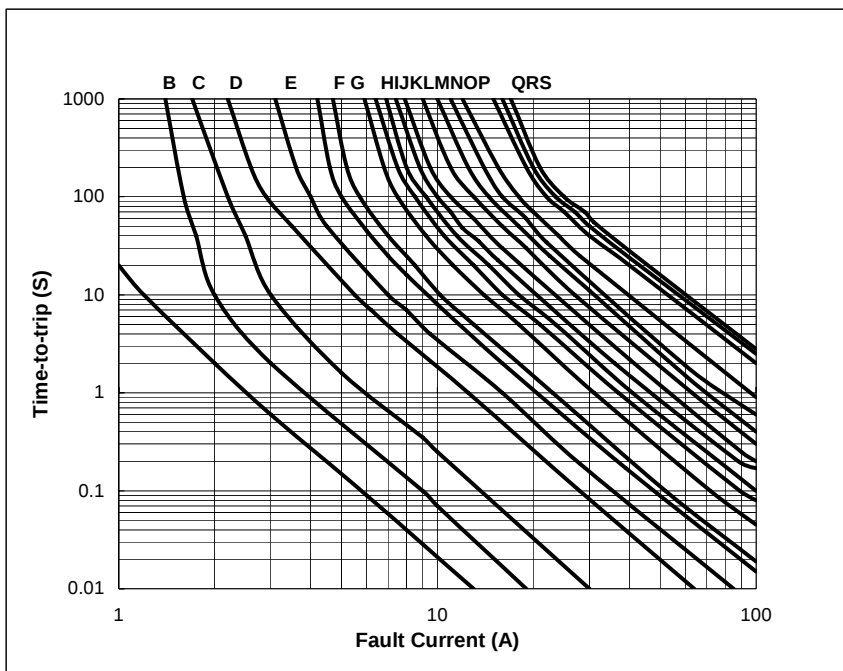


Thermal Derating Curve



Typical Time-To-Trip at 23°

- 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





Electrical Characteristics (23°)

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 5xI _H	I _{MAX} , A	V _{MAX} , Vdc	P _d , W	R _{MIN}	R _{1MAX}
MPTR30V090	0.90	1.80	5.9	40	30	0.6	0.070	0.22
MPTR30V110	1.10	2.20	6.6	40	30	0.7	0.050	0.17
MPTR30V135	1.35	2.70	7.3	40	30	0.8	0.040	0.13
MPTR30V160	1.60	3.20	8.0	40	30	0.9	0.030	0.11
MPTR30V185	1.85	3.70	8.7	40	30	1.0	0.030	0.09
MPTR30V250	2.50	5.00	10.3	40	30	1.2	0.020	0.07
MPTR30V300	3.00	6.00	10.8	40	30	2.0	0.020	0.08
MPTR30V400	4.00	8.00	12.7	40	30	2.5	0.010	0.05
MPTR30V500	5.00	10.00	14.5	40	30	3.0	0.010	0.05
MPTR30V600	6.00	12.00	16.0	40	30	3.5	0.005	0.04
MPTR30V700	7.00	14.00	17.5	40	30	3.8	0.005	0.03
MPTR30V800	8.00	16.00	18.8	40	30	4.0	0.005	0.02
MPTR30V900	9.00	18.00	20.0	40	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 its rated current (I_{MAX}).

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

P_d=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R_{1MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

Product Dimensions (Millimeters)

MPTR30V

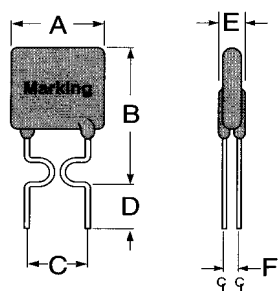


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

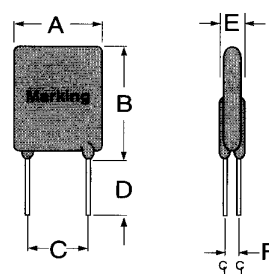


Figure 2
Lead Size: 20AWG
Φ 0.81 mm Diameter

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

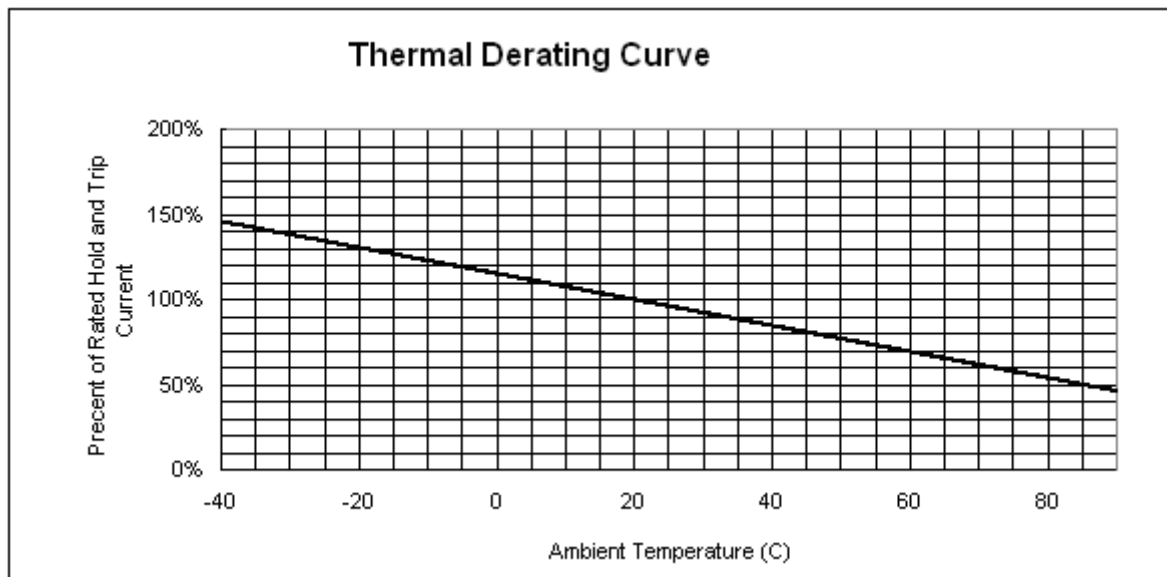
Polymeric PTC



MPTR Series

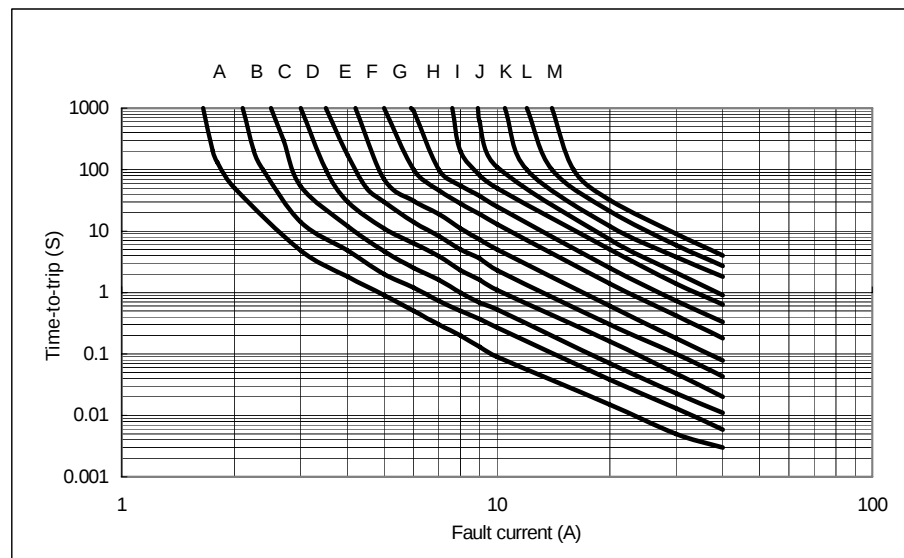
MERITEK

Thermal Derating Curve



Typical Time-To-Trip at 23°C

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



Polymeric PTC



MPTR Series

MERITEK

Electrical Characteristics (23°)

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} ,Vdc	P _d , W	R _{MIN}	R _{1MAX}
						Ω	Ω
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

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}).

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

P_d=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R_{1MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin



Product Dimensions (Millimeters)

MPTR36V

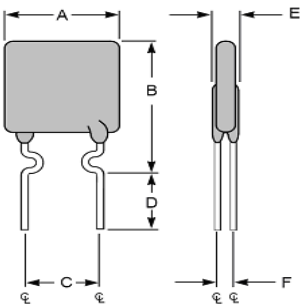


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

Part Number	A	B	C	D	E	F
	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

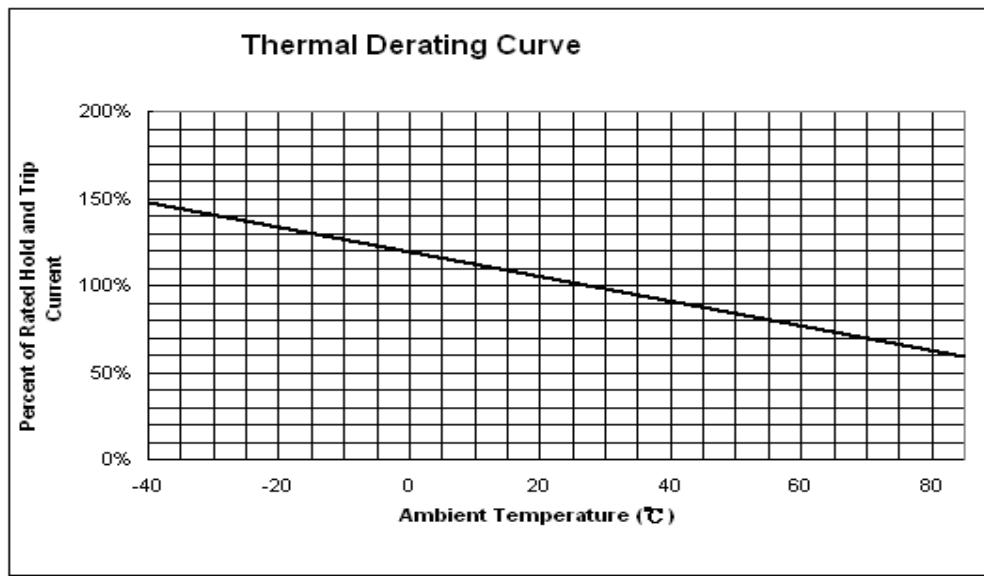
Polymeric PTC



MPTR Series

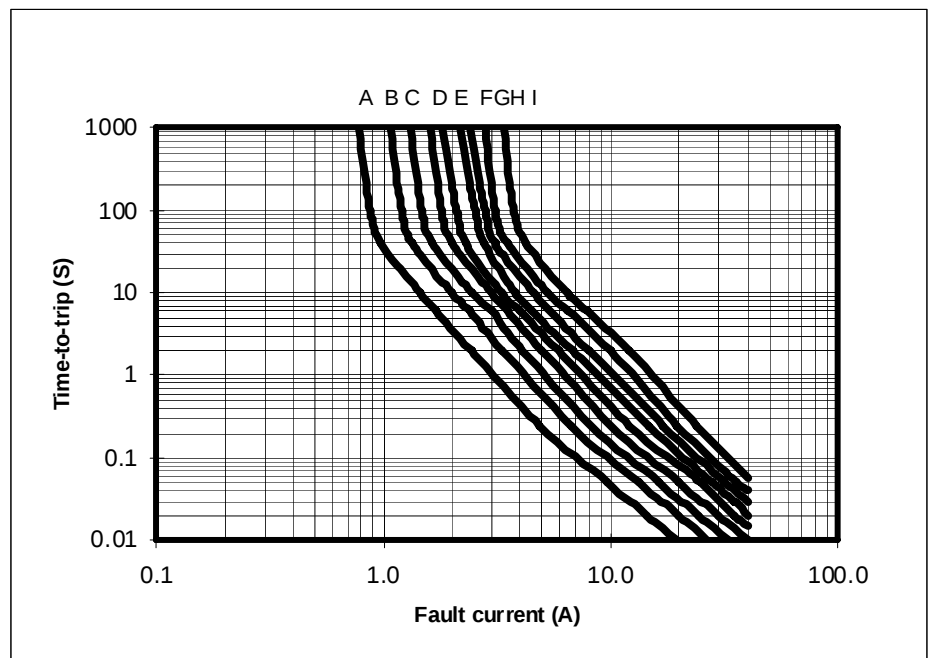
MERITEK

Thermal Derating Curve



Typical Time-To-Trip at 23°C

A = MPTR36V050
B = MPTR36V075
C = MPTR36V090
D = MPTR36V120
E = MPTR36V135
F = MPTR36V160
G = MPTR36V190
H = MPTR36V220
I = MPTR36V250





Electrical Characteristics (23°C)

MPTR60V

Part Number	Hold Current	Trip Current	Max.Time to Trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
							RMIN	R1MAX
	I _H ,A	I _T ,A	at 5xI _H	I _{MAX} ,A	V _{MAX} ,VDC	P _d , W	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
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

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}).

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

P_d=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R_{1MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

Product Dimensions (Millimeters)

MPTR60V

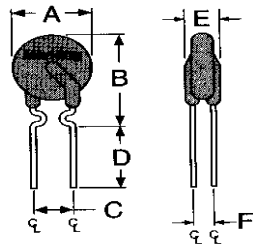


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

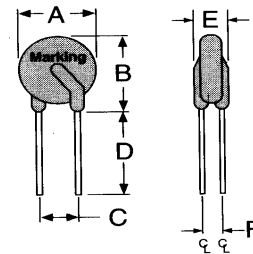


Figure 2
Lead Size: 20AWG
Φ 0.81 mm Diameter

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

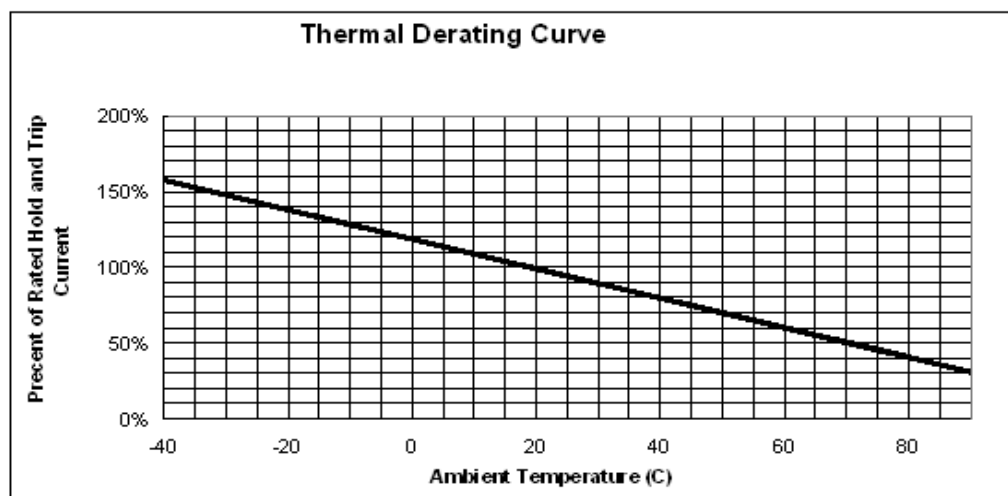
Polymeric PTC



MPTR Series

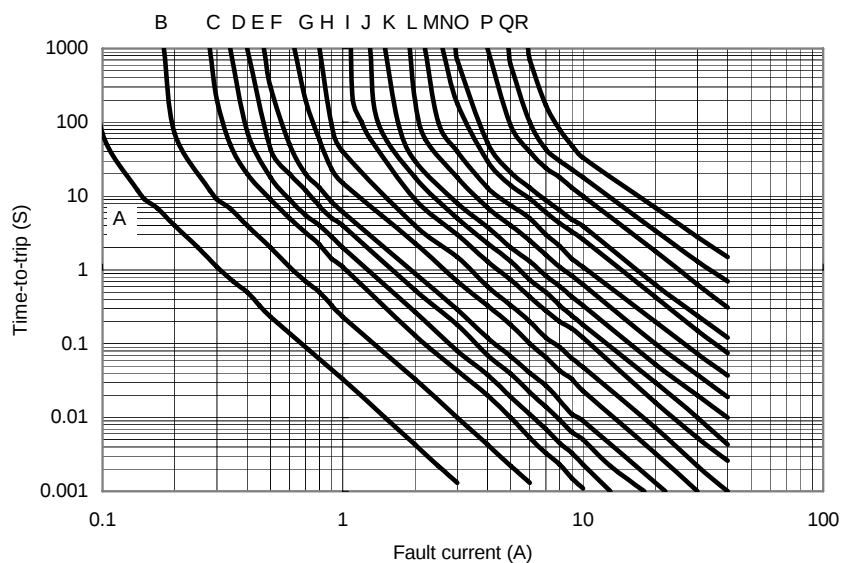
MERITEK

Thermal Derating Curve



Typical Time-To-Trip at 23°C

- 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



Electrical Characteristics (23°C)

MPTR90V

Part Number	Hold Current	Trip Current	Max.Time to Trip	Maximum Current	Rated Voltage	Typical Power	Resistance Tolerance	
							RMIN	R1MAX
	I _H ,A	I _T ,A	at 5xI _H	I _{MAX} ,A	V _{MAX} ,Vdc	Pd, W	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

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})

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

Pd=Typical power dissipated-type amount of power dissipated by the device when in the tripped state in 23°C still air environment.

R_{MIN}=Minimum device resistance at 23°C prior to tripping.

R1_{MAX}=Maximum device resistance at 23°C measured 1 hour after tripping or reflow soldering of 260°C for 20 seconds.

Termination pad characteristics

Termination pad materials: Pure Tin

Product Dimensions (Millimeters)

MPTR90V

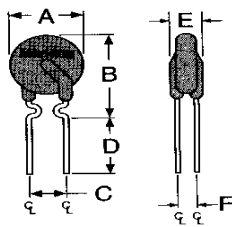


Figure 1
Lead Size: 24AWG
Φ 0.51 mm Diameter

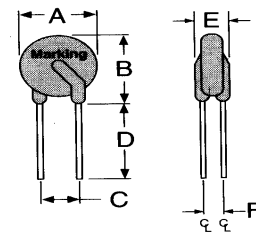


Figure 2
Lead Size: 20AWG
Φ 0.81 mm Diameter

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

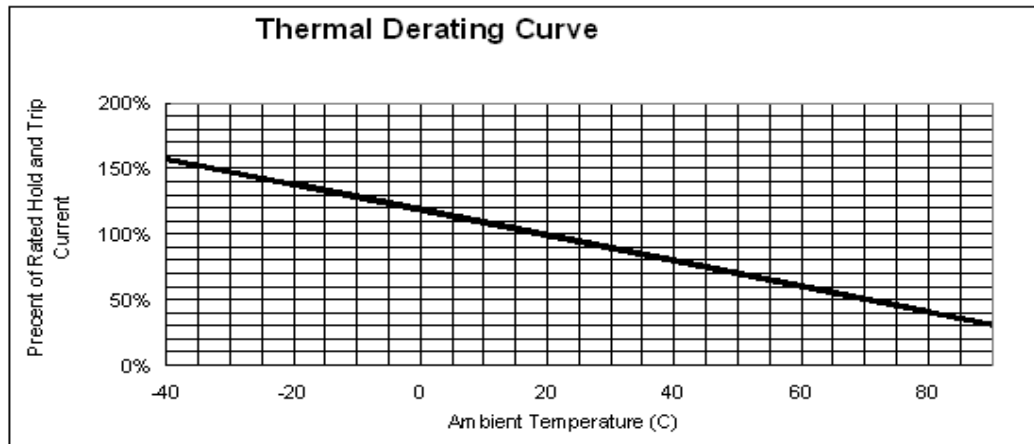
Polymeric PTC



MPTR Series

MERITEK

Thermal Derating Curve



Typical Time-To-Trip at 23°C

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

