

Polymeric PTC



MPTS Series

MERITEK

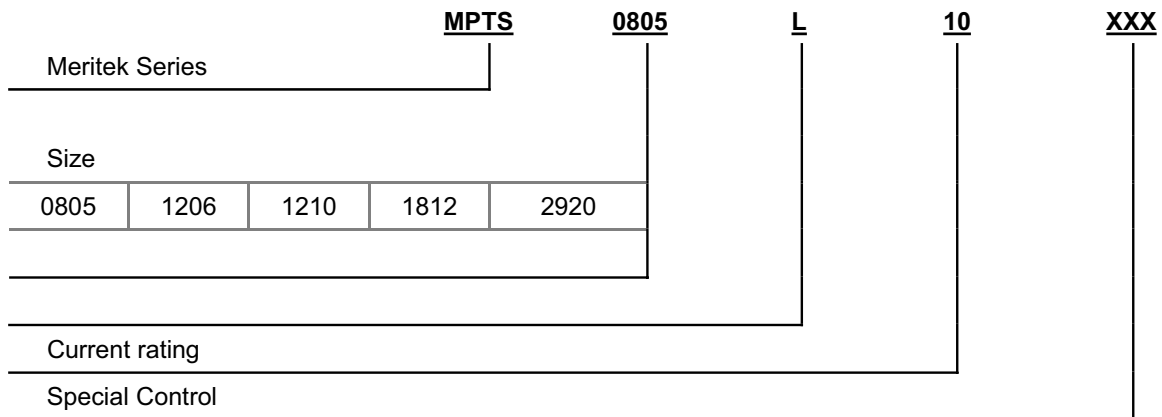
FEATURES AND APPLICATIONS

- RoHS Compliant & Halogen Free
- All high-density boards
- Surface Mount, 0805, 1206, 1210, 1812, 2920
- Fast time to trip
- Operation Current: 0.05A~3.0A
- Maximum Voltage: 6V~60V
- Temperature Range: -40°C to 85°C

UL E223037



PART NUMBERING SYSTEM

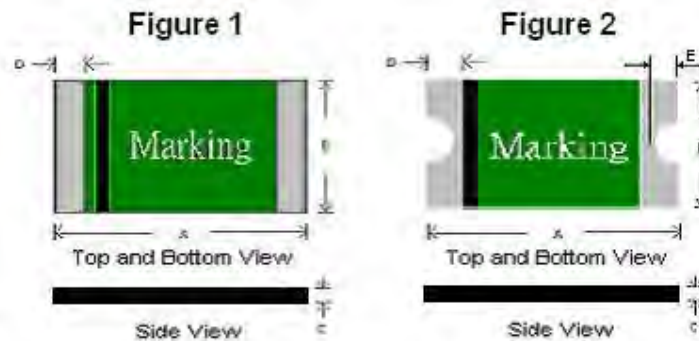




ELECTRICAL CHARACTERISTICS (23°C) (MPTS0805)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
	I_H , A	I_T , A	V_{MAX} , Vdc	I_{MAX} , A	P_d , W	Current	Time	R_{MIN}	$R1_{MAX}$
						Amp	Sec	Ω	Ω
MPTS0805L010	0.10	0.30	15	100	0.5	0.50	1.50	0.700	6.000
MPTS0805L020	0.20	0.50	9	100	0.5	8.00	0.02	0.400	3.500
MPTS0805L035	0.35	0.75	6	100	0.5	8.00	0.10	0.250	1.200
MPTS0805L050R	0.50	1.00	6	100	0.5	8.00	0.10	0.150	0.850
MPTS0805L075R	0.75	1.50	6	40	0.6	8.00	0.20	0.090	0.350
MPTS0805L100R	1.00	1.95	6	40	0.6	8.00	0.30	0.060	0.210

PRODUCT DIMENSIONS (MILLIMETERS) (MPTS0805)



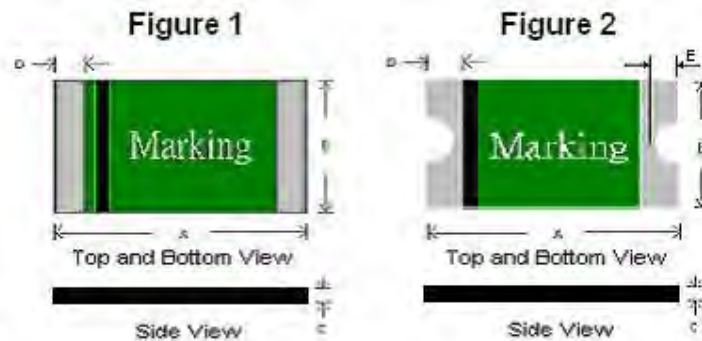
Part Number	Figure	A		B		C		D		E	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
MPTS0805L010	1	2.00	2.30	1.20	1.50	0.55	1.00	0.20	0.60	—	—
MPTS0805L020	1	2.00	2.30	1.20	1.50	0.55	1.00	0.20	0.60	—	—
MPTS0805L035	1	2.00	2.30	1.20	1.50	0.45	0.75	0.20	0.60	—	—
MPTS0805L050R	2	2.00	2.20	1.20	1.50	0.55	1.25	0.20	0.60	0.10	0.45
MPTS0805L075R	2	2.00	2.20	1.20	1.50	0.55	1.25	0.20	0.60	0.10	0.45
MPTS0805L100R	2	2.00	2.20	1.20	1.50	0.75	1.80	0.20	0.60	0.10	0.45



ELECTRICAL CHARACTERISTICS (23°C) (MPTS1206)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	Current	Time	R_{MIN}	$R1_{MAX}$
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	Amp	Sec	Ω	Ω
MPTS1206L005	0.05	0.15	60	10	0.4	0.25	1.50	3.600	50.0
MPTS1206L010	0.10	0.25	60	10	0.4	0.50	1.00	1.600	15.0
MPTS1206L020	0.20	0.40	30	10	0.4	8.00	0.05	0.600	2.500
MPTS1206L035	0.35	0.75	16	40	0.4	8.00	0.10	0.300	1.200
MPTS1206L050	0.50	1.00	8	40	0.4	8.00	0.10	0.150	0.700
MPTS1206L075R	0.75	1.50	6	100	0.6	8.00	0.20	0.090	0.290
MPTS1206L100R	1.00	1.80	6	100	0.6	8.00	0.30	0.055	0.210
MPTS1206L110R	1.10	2.20	6	100	0.8	8.00	0.30	0.040	0.180
MPTS1206L150R	1.50	3.00	6	100	0.8	8.00	1.00	0.040	0.120
MPTS1206L200R	2.00	3.50	6	100	0.8	8.00	1.50	0.018	0.080

PRODUCT DIMENSIONS (MILLIMETERS) (MPTS1206)



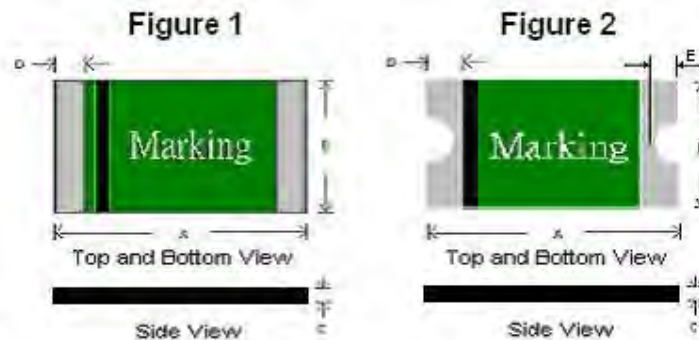
Part Number	Figure	A		B		C		D		E	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
MPTS1206L005	1	3.00	3.50	1.50	1.80	0.45	0.85	0.10	0.75	—	—
MPTS1206L010	1	3.00	3.50	1.50	1.80	0.45	0.85	0.10	0.75	—	—
MPTS1206L020	1	3.00	3.50	1.50	1.80	0.45	0.75	0.10	0.75	—	—
MPTS1206L035	1	3.00	3.50	1.50	1.80	0.45	0.75	0.10	0.75	—	—
MPTS1206L050	1	3.00	3.50	1.50	1.80	0.25	0.55	0.10	0.75	—	—
MPTS1206L075R	2	3.00	3.50	1.50	1.80	0.45	1.25	0.25	0.75	0.10	0.45
MPTS1206L100R	2	3.00	3.50	1.50	1.80	0.45	1.00	0.25	0.75	0.10	0.45
MPTS1206L110R	2	3.00	3.50	1.50	1.80	0.45	1.00	0.25	0.75	0.10	0.45
MPTS1206L150R	2	3.00	3.50	1.50	1.80	0.80	1.40	0.25	0.75	0.10	0.45
MPTS1206L200R	2	3.00	3.50	1.50	1.80	0.85	1.60	0.25	0.75	0.10	0.45



ELECTRICAL CHARACTERISTICS (23°C) (MPTS1210)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	Current	Time	R_{MIN}	$R1_{MAX}$
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	Amp	Sec	Ω	Ω
MPTS1210L005	0.05	0.15	60	10	0.60	0.25	1.50	3.600	50.000
MPTS1210L010	0.10	0.25	60	10	0.60	0.50	1.50	1.600	15.000
MPTS1210L020	0.20	0.40	30	10	0.60	8.00	0.02	0.800	5.000
MPTS1210L035	0.35	0.70	16	40	0.60	8.00	0.20	0.320	1.300
MPTS1210L050	0.50	1.00	16	40	0.60	8.00	0.10	0.250	0.900
MPTS1210L075	0.75	1.50	8	40	0.60	8.00	0.10	0.130	0.400
MPTS1210L110R	1.10	2.20	6	100	0.80	8.00	0.30	0.060	0.210
MPTS1210L150R	1.50	3.00	6	100	0.80	8.00	0.50	0.040	0.110
MPTS1210L175R	1.75	4.00	6	100	0.8	8.00	0.60	0.020	0.080
MPTS1210L200R	2.00	4.00	6	100	0.8	8.00	1.00	0.015	0.070

PRODUCT DIMENSIONS (MILLIMETERS) (MPTS1210)



Part Number	Figure	A		B		C		D		E	
		Min	Max	Min	Max	Min	Min	Min	Max	Min	Max
MPTS1210L005	1	3.00	3.43	2.35	2.80	0.60	1.15	0.25	0.75	—	—
MPTS1210L010	1	3.00	3.43	2.35	2.80	0.60	1.15	0.25	0.75	—	—
MPTS1210L020	1	3.00	3.43	2.35	2.80	0.40	0.85	0.25	0.75	—	—
MPTS1210L035	1	3.00	3.43	2.35	2.80	0.40	0.80	0.25	0.75	—	—
MPTS1210L050	1	3.00	3.43	2.35	2.80	0.30	0.75	0.25	0.75	—	—
MPTS1210L075	1	3.00	3.43	2.35	2.80	0.30	0.70	0.25	0.75	—	—
MPTS1210L110R	2	3.00	3.43	2.35	2.80	0.60	1.00	0.25	0.75	0.10	0.45
MPTS1210L150R	2	3.00	3.43	2.35	2.80	0.50	0.90	0.25	0.75	0.10	0.45
MPTS1210L175R	2	3.00	3.43	2.35	2.80	0.80	1.40	0.25	0.75	0.10	0.45
MPTS1210L200R	2	3.00	3.43	2.35	2.80	0.80	1.40	0.25	0.75	0.10	0.45

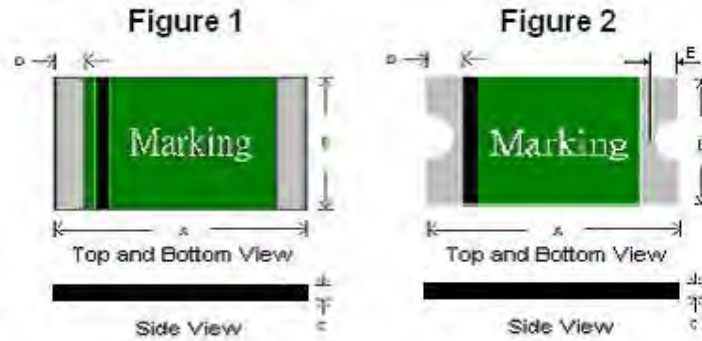


ELECTRICAL CHARACTERISTICS (23°C) (MPTS1812)

Part Number	Hold	Trip	Rated	Max	Typical	Max Time to Trip		Resistance	
	Current	Current	Voltage	Current	Power	Current	Time	R _{MIN}	R _{1MAX}
	I _H , A	I _T , A	V _{MAX} , Vdc	I _{MAX} , A	Pd, W	Amp	Sec	Ω	Ω
MPTS1812L010	0.10	0.30	60	10	0.8	8.0	< 0.02	1.600	15.00
MPTS1812L014	0.14	0.30	60	10	0.8	8.0	0.008	1.200	6.500
MPTS1812L020	0.20	0.40	30	10	0.8	8.0	0.020	0.800	5.000
MPTS1812L035	0.35	0.70	16	40	0.8	8.0	0.100	0.320	1.500
MPTS1812L050	0.50	1.00	16	40	0.8	8.0	0.150	0.150	1.000
MPTS1812L075	0.75	1.50	16	40	0.8	8.0	0.200	0.110	0.450
MPTS1812L07524R	0.75	1.50	24	40	1.0	8.0	0.200	0.110	0.290
MPTS1812L07533R	0.75	1.50	33	40	1.0	8.0	0.200	0.110	0.400
MPTS1812L110	1.10	2.20	8	100	0.8	8.0	0.300	0.040	0.210
MPTS1812L11016	1.10	1.95	16	40	0.8	8.0	0.500	0.040	0.180
MPTS1812L11024R	1.10	2.20	24	100	1.0	8.0	0.500	0.060	0.200
MPTS1812L125	1.25	2.50	6	40	0.8	8.0	0.400	0.050	0.140
MPTS1812L150	1.50	3.00	6	40	0.8	8.0	0.500	0.040	0.110
MPTS1812L15012R	1.50	3.00	12	100	1.0	8.0	0.500	0.040	0.110
MPTS1812L15024R	1.50	3.00	24	100	1.0	8.0	1.500	0.040	0.120
MPTS1812L160	1.60	3.20	6	40	0.8	8.0	0.500	0.030	0.100
MPTS1812L16012R	1.60	3.20	12	100	1.0	8.0	1.000	0.030	0.100
MPTS1812L16016R	1.60	3.20	16	100	1.0	8.0	1.000	0.030	0.100
MPTS1812L190RZ	1.90	4.90	6	100	1.0	8.0	5.000	0.003	0.025
MPTS1812L200R	2.00	3.50	8	100	1.0	8.0	2.000	0.020	0.070
MPTS1812L260R	2.60	5.00	6	100	1.0	8.0	2.500	0.015	0.047
MPTS1812L26013R	2.60	5.00	13.2	100	1.3	8.0	5.000	0.015	0.050
MPTS1812L26016R	2.60	5.00	16	100	1.3	8.0	5.000	0.015	0.050
MPTS1812L300R	3.00	5.00	6	100	1.0	8.0	4.000	0.012	0.040



PRODUCT DIMENSIONS (MILLIMETERS) (MPTS1812)



Part Number	Figure	A		B		C		D		E	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
MPTS1812L010	1	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	—	—
MPTS1812L014	1	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	—	—
MPTS1812L020	1	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.95	—	—
MPTS1812L035	1	4.37	4.73	3.07	3.41	0.40	0.70	0.30	0.95	—	—
MPTS1812L050	1	4.37	4.73	3.07	3.41	0.35	0.65	0.30	0.95	—	—
MPTS1812L075	1	4.37	4.73	3.07	3.41	0.35	0.65	0.30	0.95	—	—
MPTS1812L07524R	2	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
MPTS1812L07533R	2	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
MPTS1812L110	1	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	—	—
MPTS1812L11016	1	4.37	4.73	3.07	3.41	0.25	0.90	0.30	0.95	—	—
MPTS1812L11024R	2	4.37	4.73	3.07	3.41	0.80	1.30	0.25	0.95	0.25	0.65
MPTS1812L125	1	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	—	—
MPTS1812L150	1	4.37	4.73	3.07	3.41	0.25	0.55	0.30	0.95	—	—
MPTS1812L15012R	2	4.37	4.73	3.07	3.41	0.60	1.10	0.25	0.95	0.25	0.65
MPTS1812L15024R	2	4.37	4.73	3.07	3.41	0.60	1.55	0.25	0.95	0.25	0.65
MPTS1812L160	1	4.37	4.73	3.07	3.41	0.25	0.90	0.30	0.95	—	—
MPTS1812L16012R	2	4.37	4.73	3.07	3.41	0.60	1.35	0.25	0.95	0.25	0.65
MPTS1812L16016R	2	4.37	4.73	3.07	3.41	0.60	1.35	0.25	0.95	0.25	0.65
MPTS1812L190RZ	2	4.37	4.73	3.07	3.41	0.30	0.70	0.25	0.95	0.25	0.65
MPTS1812L200R	2	4.37	4.73	3.07	3.41	0.55	1.20	0.25	0.95	0.25	0.65
MPTS1812L260R	2	4.37	4.73	3.07	3.41	0.55	1.20	0.25	0.95	0.25	0.65
MPTS1812L26013R	2	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
MPTS1812L26016R	2	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65
MPTS1812L300R	2	4.37	4.73	3.07	3.41	0.80	1.55	0.25	0.95	0.25	0.65



ELECTRICAL CHARACTERISTICS (23°C) (MPTS2920)

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Max Time to Trip		Resistance	
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	Current	Time	R_{MIN}	$R1_{MAX}$
	I_H, A	I_T, A	V_{MAX}, Vdc	I_{MAX}, A	Pd, W	A	Sec	Ω	Ω
MPTS2920L030	0.30	0.60	60	10	1.5	1.5	3.0	1.000	4.800
MPTS2920L050	0.50	1.00	60	10	1.5	2.5	4.0	0.300	1.400
MPTS2920L075	0.75	1.50	33	40	1.5	8.0	0.3	0.180	1.000
MPTS2920L100	1.10	2.20	33	40	1.5	8.0	0.5	0.090	0.410
MPTS2920L125	1.25	2.50	33	40	1.5	8.0	2.0	0.050	0.250
MPTS2920L150	1.50	3.00	33	40	1.5	8.0	2.0	0.050	0.230
MPTS2920L185	1.85	3.70	33	40	1.5	8.0	2.5	0.040	0.150
MPTS2920L200	2.00	4.00	16	40	1.5	8.0	4.5	0.035	0.120
MPTS2920L250	2.50	5.00	16	40	1.5	8.0	16.0	0.025	0.085
MPTS2920L260	2.60	5.20	6	40	1.5	8.0	20.0	0.020	0.075
MPTS2920L300	3.00	5.20	6	40	1.5	8.0	25.0	0.010	0.048

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 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.

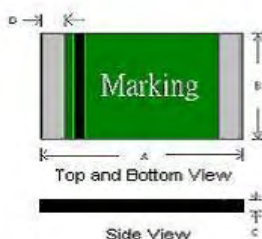
R_{MIN} =Minimum device resistance at 23°C prior to tripping.

$R1_{MAX}$ =Maximum device resistance at 23°C measured 1 hour post trip.

Termination pad characteristics

Termination pad materials : Pure Tin

PRODUCT DIMENSIONS (MILLIMETERS) (MPTS2920)



Part Number	A		B		C		D
	Min	Max	Min	Max	Min	Max	Min
MPTS2920L030	6.73	7.98	4.80	5.44	0.60	1.15	0.35
MPTS2920L050	6.73	7.98	4.80	5.44	0.60	1.15	0.35
MPTS2920L075	6.73	7.98	4.80	5.44	0.40	1.15	0.35
MPTS2920L100	6.73	7.98	4.80	5.44	0.40	1.00	0.35
MPTS2920L125	6.73	7.98	4.80	5.44	0.40	0.90	0.35
MPTS2920L150	6.73	7.98	4.80	5.44	0.40	0.90	0.35
MPTS2920L185	6.73	7.98	4.80	5.44	0.30	0.90	0.35
MPTS2920L200	6.73	7.98	4.80	5.44	0.30	0.90	0.35
MPTS2920L250	6.73	7.98	4.80	5.44	0.30	0.90	0.35
MPTS2920L260	6.73	7.98	4.80	5.44	0.30	0.90	0.35
MPTS2920L300	6.73	7.98	4.80	5.44	0.40	0.90	0.35