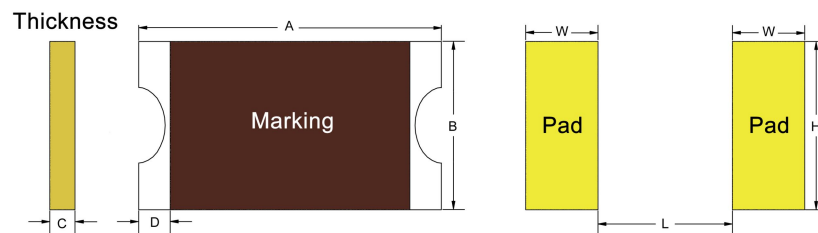


Resettable PTCS - 0805 Series

Features

- Surface mount overcurrent protection.
- Resettable protection is desired
- Protecting against over-current and over-temperature faults
- RoHS compliant , lead-free and halogen free .

PACKAGEDIMENSIONS



Part number	A		B		C		D	E	W	H	L
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	±0.1	±0.1	±0.1
SMD0805-010	2.00	2.20	1.20	1.50	0.50	1.00	0.20	0.10	1.0	1.5	1.2
SMD0805-020	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10	1.0	1.5	1.2
0805-020-15V	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10	1.0	1.5	1.2
SMD0805-035	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10	1.0	1.5	1.2
SMD0805-050	2.00	2.20	1.20	1.50	0.30	0.60	0.20	0.10	1.0	1.5	1.2
SMD0805-075	2.00	2.20	1.20	1.50	0.65	1.25	0.20	0.10	1.0	1.5	1.2
SMD0805-100	2.00	2.20	1.20	1.50	0.80	1.80	0.20	0.10	1.0	1.5	1.2
0805-100-12V	2.00	2.20	1.20	1.50	0.80	1.80	0.20	0.10	1.0	1.5	1.2
SMD0805-110	2.00	2.20	1.20	1.50	0.80	1.80	0.20	0.10	1.0	1.5	1.2
SMD0805-125	2.00	2.20	1.20	1.50	0.80	1.80	0.20	0.10	1.0	1.5	1.2

Electrical Characteristics

Model	$V_{max}(dc)$	$I_{max}(A)$	I_{hold} @25°C (A)	I_{trip} @ 25°C (A)	P_d Max(W)	Max Time to trip		Resistance	
						Current (A)	Time (Sec)	R_{1min} (Ω)	R_{1max} (Ω)
SMD0805-010	15.0	100	0.10	0.30	0.5	0.5	1.50	1.000	6.000
SMD0805-020	9.0	100	0.20	0.50	0.5	8.0	0.02	0.650	3.500
0805-020-15V	15.0	100	0.20	0.50	0.5	8.0	0.02	0.650	3.500
SMD0805-035	6.0	100	0.35	0.75	0.5	8.0	0.10	0.250	1.200
SMD0805-050	6.0	100	0.50	1.00	0.5	8.0	0.10	0.150	0.850
SMD0805-075	6.0	40.0	0.75	1.50	0.6	8.0	0.20	0.090	0.385
SMD0805-100	6.0	100	1.00	1.95	0.6	8.0	0.30	0.060	0.230
0805-100-12V	12.0	100	1.00	1.95	0.6	8.0	0.30	0.060	0.230
SMD0805-110	6.0	100	1.10	2.20	0.6	8.0	0.30	0.060	0.210
SMD0805-125	6.0	100	1.25	2.50	0.6	8.0	0.60	0.030	0.140

- I_h =Hold current: maximum current at which the device will not trip at 25 still air .
- I_t =Trip current minimum current at which the device will always trip at 25°C still air .
- V_{max} =Maximum voltage device can withstand without damage at rated current.
- I_{max} =Maximum fault current device can withstand without damage at rated voltage.
- T_{trip} =Maximum time to trip at 5 times hold current
- R_{max} =Maximum device resistance at 25 prior to tripping.
- R_{min} =Minimum device resistance at 25 prior to tripping.
- $P_{d_{typ}}$ =Typical power dissipation: typical amount of power dissipated by the device when in state air environment.

Thermal Deration Chart- I_{hold}

MODEL	Max ambient operating temperature Vs.hold current (I_{hold})								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD0805-010	0.14	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03
SMD0805-020	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805-035	0.47	0.44	0.39	0.35	0.30	0.27	0.24	0.20	0.14
SMD0805-050	0.68	0.62	0.55	0.50	0.40	0.37	0.33	0.29	0.23
SMD0805-075	1.00	0.90	0.79	0.75	0.63	0.57	0.53	0.41	0.34
SMD0805-100	1.35	1.25	1.15	1.00	0.82	0.74	0.65	0.55	0.42
SMD0805-110	1.50	1.37	1.27	1.10	0.90	0.81	0.72	0.60	0.46
SMD0805-125	1.70	1.56	1.42	1.25	1.02	0.93	0.81	0.69	0.52

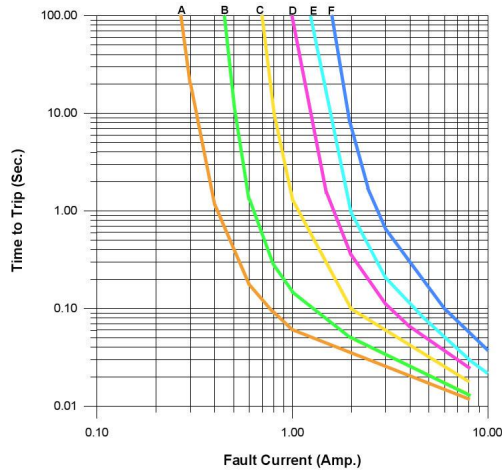
Test Procedures and Requirements

Test	Test Conditions	Accept/Reject Criteria
Resistance	In still air @ 25°C	$R_{min} \leq R \leq R_{1max}$
Time to Trip	V_{max} , 25°C, In still air @ 25°C	$T \leq \text{max. time to trip (seconds)}$
Hold Current	30 min. at I_H , In still air @ 25°C	No trip
Trip Cycle Life	V_{max} , I_{max} , 100 cycles, In still air @ 25°C	No arcing or burning
Trip Endurance	V_{max} , 1 hours, In still air @ 25°C	No arcing or burning

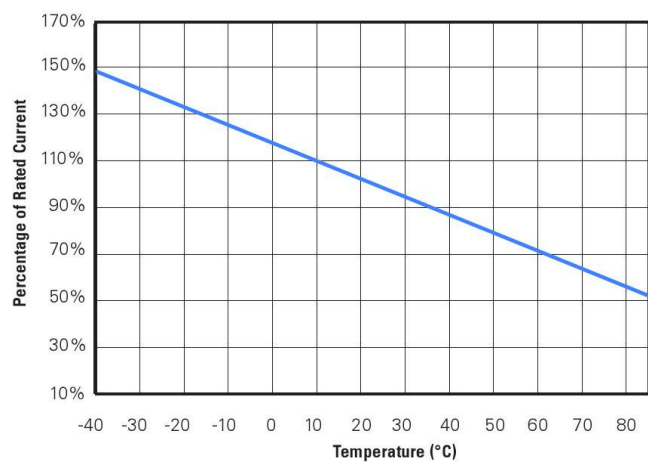
Environmental Specifications

Operating/Storage Temperature	-40°C to +85°C
Maximum Device Surface Temperature in Tripped State	125°C
Passive Aging	Passive Aging +85°C, 1000 hours $\pm 5\%$ typical resistance change
Humidity Aging	+85°C, 85%R.H. 1000 hours $\pm 5\%$ typical resistance change
Thermal Shock	MIL-STD-202 Method 107G +85°C/-40°C 20 times -30% typical resistance change
Solvent Resistance	MIL-STD-202, Method 215 No change
Vibration	MIL-STD-883C, Method 2007.1, Condition A No change

Typical time-to-trip charts @25°C



Temperature rating Curve



Warning :

PPTC devices are intended for protection against occasional over-current or over-temperature fault conditions, and should not be used when repeated fault conditions are anticipated. Operation beyond maximum ratings or improper use may result in device damage and possible electrical arcing and flame.