

## FEATURES

- | I(hold): 0.75~4.0A
- | Very high voltage surge capabilities
- | Available in lead-free version
- | Fast response to fault current
- | RoHS compliant, Lead- Free and Halogen-Free
- | Low resistance
- | Compact design saves board space
- | Compatible with high temperature solders



## APPLICATIONS

- | USB peripherals
- | Disk drives
- | CD-ROMs
- | General electronics
- | Set-top-box and HDMI
- | Mobile Internet Device (MID)
- | PDAs / digital cameras
- | Game console port protection
- | Plug and play protection for peripherals
- | Mobile phones - battery and port protection

## ENVIRONMENTAL SPECIFICATIONS

Test	Conditions	Resistance change
Passive aging	85°C,1000 hours	±10% typical
Humidity aging	85°C, 85%R.H.,100 hours	±5% typical
Thermal shock	MIL-STD-202,Method 107G +85°C/-40°C,20times	-30% typical
Solvent Resistance	MIL-STD-202,Method 215	No change
Vibration	ML-STD-883C,Method 2007.1,Condition A	No change
Ambient operating conditions : - 40°C to +85°C		
Maximum surface temperature of the device in the tripped state is 125 °C		

## PERFORMANCE SPECIFICATION

Type Number	$I_{hold}$	$I_{trip}$	$V_{max}$	Max. Time to Trip		$I_{max}$	$P_{d\ typ}$	$Ri_{min}$	$R1_{max}$
	A	A	$V_{DC}$	Current A	$T_{max}$ S	A	W	$\Omega$	$\Omega$
SMD0805-075L	0.75	1.5	6.0	8.0	1.0	50.0	0.7	0.060	0.300
SMD0805-075L-12	0.75	1.5	12.0	8.0	1.0	50.0	0.7	0.060	0.300
SMD0805-110L	1.1	2.2	6.0	8.0	1.0	50.0	0.7	0.018	0.110
SMD0805-110L-12	1.1	2.2	12.0	8.0	1.0	50.0	0.7	0.018	0.110
SMD0805-125L	1.25	2.5	6.0	8.0	1.0	50.0	0.7	0.016	0.100
SMD0805-125L-12	1.25	2.5	12.0	8.0	1.0	50.0	0.7	0.016	0.100
SMD0805-150L	1.5	3.0	6.0	8.0	1.0	50.0	0.7	0.008	0.065
SMD0805-150L-12	1.5	3.0	12.0	8.0	1.0	50.0	0.7	0.008	0.065
SMD0805-175L	1.75	3.5	6.0	8.75	2.0	50.0	0.7	0.008	0.055
SMD0805-175L-12	1.75	3.5	12.0	8.75	2.0	50.0	0.7	0.008	0.055
SMD0805-200L	2.0	4.0	6.0	10.0	2.0	50.0	0.7	0.006	0.045
SMD0805-200L-12	2.0	4.0	12.0	10.0	2.0	50.0	0.7	0.006	0.045
SMD0805-260L	2.6	5.2	6.0	13.0	2.0	50.0	0.7	0.003	0.035
SMD0805-260L-12	2.6	5.2	12.0	13.0	2.0	50.0	0.7	0.003	0.035
SMD0805-300L	3.0	6.0	6.0	15.0	2.0	50.0	0.8	0.003	0.030
SMD0805-300L-12	3.0	6.0	12.0	15.0	2.0	50.0	0.8	0.003	0.030
SMD0805-350L	3.5	7.0	6.0	17.5	2.0	50.0	0.8	0.003	0.025
SMD0805-350L-12	3.5	7.0	12.0	17.5	2.0	50.0	0.8	0.003	0.025
SMD0805-380L	3.8	7.6	6.0	19.0	2.0	50.0	0.8	0.003	0.020
SMD0805-380L-12	3.8	7.6	12.0	19.0	2.0	50.0	0.8	0.003	0.020
SMD0805-400L	4.0	8.0	6.0	20.0	2.0	50.0	0.8	0.003	0.015
SMD0805-400L-12	4.0	8.0	12.0	20.0	2.0	50.0	0.8	0.003	0.015

$V_{max}$  = Maximum operating voltage device can withstand without damage at rated current ( $I_{max}$ ).

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

$I_{hold}$  = Hold Current. Maximum current device will not trip in 25°C still air.

$I_{trip}$  = Trip Current. Minimum current at which the device will always trip in 25°C still air.

$P_d$  = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

$Ri_{min/max}$  = Minimum/Maximum device resistance prior to tripping at 25°C.

$R1_{max}$  = Maximum device resistance is measured one hour post reflow.

## THERMAL DERATING CHART- $I_H$ (A)

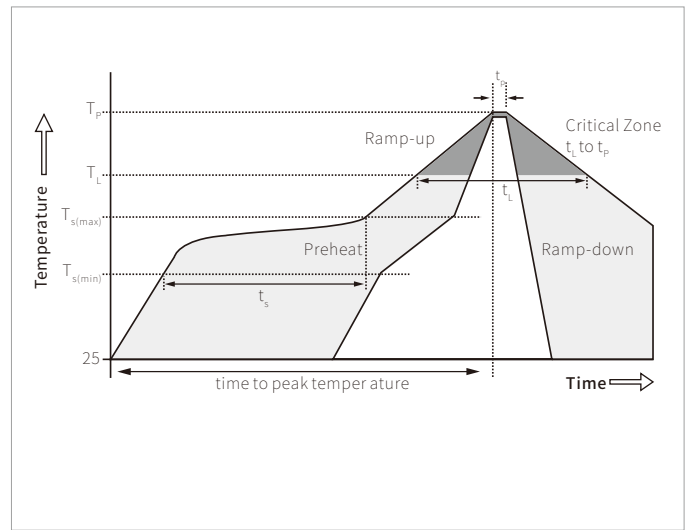
Part Number	Ambient Operation Temperature								
	-40 °C	-20 °C	0 °C	25 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SMD0805-075L	1.07	0.94	0.88	0.75	0.66	0.63	0.60	0.48	0.34
SMD0805-075L-12	1.07	0.94	0.88	0.75	0.66	0.63	0.60	0.48	0.34
SMD0805-110L	1.57	1.38	1.29	1.10	0.98	0.92	0.88	0.71	0.50
SMD0805-110L-12	1.57	1.38	1.29	1.10	0.98	0.92	0.88	0.71	0.50
SMD0805-125L	1.78	1.57	1.47	1.25	1.11	1.05	1.00	0.81	0.57
SMD0805-125L-12	1.78	1.57	1.47	1.25	1.11	1.05	1.00	0.81	0.57
SMD0805-150L	2.14	1.88	1.76	1.50	1.33	1.25	1.20	0.97	0.68
SMD0805-150L-12	2.14	1.88	1.76	1.50	1.33	1.25	1.20	0.97	0.68
SMD0805-175L	2.50	2.19	2.05	1.75	1.55	1.46	1.40	1.13	0.79
SMD0805-175L-12	2.50	2.19	2.05	1.75	1.55	1.46	1.40	1.13	0.79
SMD0805-200L	2.85	2.51	2.35	2.00	1.77	1.67	1.60	1.29	0.91
SMD0805-200L-12	2.85	2.51	2.35	2.00	1.77	1.67	1.60	1.29	0.91
SMD0805-260L	3.71	3.25	3.06	2.60	2.30	2.17	2.08	1.68	1.18
SMD0805-260L-12	3.71	3.25	3.06	2.60	2.30	2.17	2.08	1.68	1.18
SMD0805-300L	4.29	3.75	3.53	3.00	2.65	2.50	2.40	1.94	1.36
SMD0805-300L-12	4.29	3.75	3.53	3.00	2.65	2.50	2.40	1.94	1.36
SMD0805-350L	5.00	4.38	4.12	3.50	3.09	2.92	2.80	2.26	1.59
SMD0805-350L-12	5.00	4.38	4.12	3.50	3.09	2.92	2.80	2.26	1.59
SMD0805-380L	5.43	4.76	4.47	3.80	3.35	3.17	3.04	2.45	1.73
SMD0805-380L-12	5.43	4.76	4.47	3.80	3.35	3.17	3.04	2.45	1.73
SMD0805-400L	5.72	5.00	4.71	4.00	3.53	3.33	3.20	2.59	1.81
SMD0805-400L-12	5.72	5.00	4.71	4.00	3.53	3.33	3.20	2.59	1.81

## DIMENSIONS

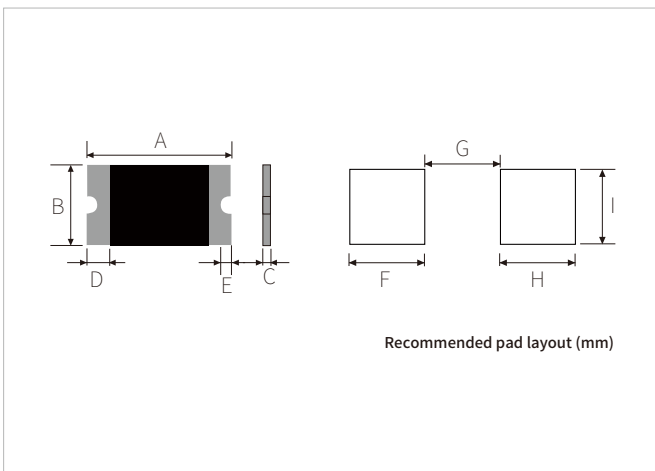
Part Number	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
SMD0805-075L	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-075L-12	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-110L	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-110L-12	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-125L	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-125L-12	2.0	2.2	1.2	1.5	0.3	0.7	0.20	0.1
SMD0805-150L	2.0	2.2	1.2	1.5	0.4	1.0	0.20	0.1
SMD0805-150L-12	2.0	2.2	1.2	1.5	0.4	1.0	0.20	0.1
SMD0805-175L	2.0	2.2	1.2	1.5	0.4	1.2	0.20	0.1
SMD0805-175L-12	2.0	2.2	1.2	1.5	0.4	1.2	0.20	0.1
SMD0805-200L	2.0	2.2	1.2	1.5	0.4	1.2	0.20	0.1
SMD0805-200L-12	2.0	2.2	1.2	1.5	0.4	1.2	0.20	0.1
SMD0805-260L	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-260L-12	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-300L	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-300L-12	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-350L	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-350L-12	2.0	2.2	1.2	1.5	0.5	1.4	0.20	0.1
SMD0805-380L	2.0	2.2	1.2	1.5	0.6	1.6	0.20	0.1
SMD0805-380L-12	2.0	2.2	1.2	1.5	0.6	1.6	0.20	0.1
SMD0805-400L	2.0	2.2	1.2	1.5	0.6	1.6	0.20	0.1
SMD0805-400L-12	2.0	2.2	1.2	1.5	0.6	1.6	0.20	0.1

## REFLOW PROFILE

Reflow Condition		Pb-Free assembly
Pre Heat	Temperature Min	150°C
	Temperature Max	200°C
	Time(min to max)	60-180 secs
Average ramp up rate (Liquidus) Temp ( $T_L$ ) to peak $T_s(\text{max})$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Temperature ( $T_L$ )	60-150 seconds
Peak Temperature ( $T_p$ )		260+0/-5 °C
Time within 5°C of actual peak Temperature ( $t_p$ )		20~40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

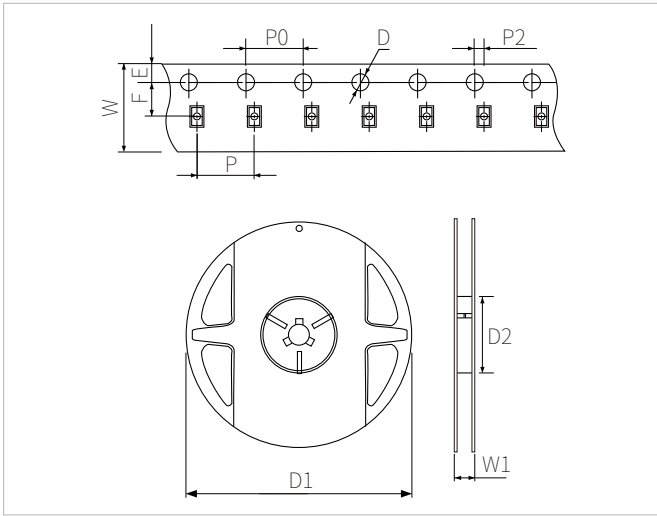


## PACKAGE MECHANICAL DATA



Ref.	Dimensions
	Millimeters
A	See Dimensions Table
B	
C	
D	
E	
F	0.8
G	1.0
H	0.8
I	1.5

## TAPING AND REEL SPECIFICATIONS



Symbol	Dimensions	
	Millimeters	Inches
W	$8 \pm 0.3$	$0.315 \pm 0.012$
P	$4 \pm 0.1$	$0.157 \pm 0.004$
P0	$4 \pm 0.1$	$0.157 \pm 0.004$
P2	$2 \pm 0.05$	$0.079 \pm 0.002$
F	$3.5 \pm 0.05$	$0.138 \pm 0.002$
E	$1.75 \pm 0.1$	$0.069 \pm 0.004$
D	$1.55 \pm 0.05$	$0.061 \pm 0.002$
D1(max)	178	7.007
D2(min)	60	2.362
W1	$12.0 \pm 1$	$0.472 \pm 0.039$

## ORDERING INFORMATION

Part Number	Model	QTY/Reel	Reel Size
SMD0805-xxxL	SMD0805-075L~SMD0805-150L-12	5000PCS	7"
	SMD0805-175L~SMD0805-200L-12	4000PCS	
	SMD0805-260L~SMD0805-400L-12	3000PCS	

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