

FEATURES

- | I(hold): 0.05~1.10A
- | 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	±33% typical resistance change
Resistance to solvent	MIL-STD-202,Method 215	No change
Vibration	ML-STD-883C,Test 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	Ω	Ω
SMD0805-005	0.05	0.15	15	0.5	1.50	100	0.5	1.50	25.0
SMD0805-005-24	0.05	0.20	24	0.5	1.50	100	0.5	1.50	20.0
SMD0805-010	0.10	0.30	15	0.5	1.50	100	0.5	1.00	8.00
SMD0805-010-24	0.10	0.30	24	0.5	1.50	100	0.5	1.00	8.00
SMD0805-020	0.20	0.50	9	8.0	0.02	100	0.5	0.50	3.50
SMD0805-020-12	0.20	0.50	12	8.0	0.02	100	0.5	0.50	3.50
SMD0805-020-16	0.20	0.50	15	8.0	0.02	40	0.5	0.50	4.50
SMD0805-020-30	0.20	0.50	30	8.0	0.02	40	0.5	0.50	4.50
SMD0805-025	0.25	0.50	6	8.0	0.02	100	0.5	0.45	3.20
SMD0805-030	0.30	0.70	6	8.0	0.10	100	0.5	0.25	2.00
SMD0805-035	0.35	0.75	6	8.0	0.10	100	0.5	0.25	1.20
SMD0805-035-12	0.35	0.75	12	8.0	0.10	100	0.5	0.25	1.30
SMD0805-050	0.50	1.00	6	8.0	0.10	100	0.6	0.15	0.85
SMD0805-050-9	0.50	1.00	9	8.0	0.10	40	0.5	0.15	0.9
SMD0805-050-12	0.50	1.00	12	8.0	0.10	40	0.5	0.15	0.9
SMD0805-050-16	0.50	1.00	16	8.0	0.10	40	0.5	0.15	0.9
SMD0805-075	0.75	1.50	6	8.0	0.20	100	0.6	0.09	0.385
SMD0805-100	1.00	1.95	6	8.0	0.30	100	0.6	0.06	0.23
SMD0805-110	1.10	2.20	6	8.0	0.30	100	0.6	0.06	0.21

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-IH(A)

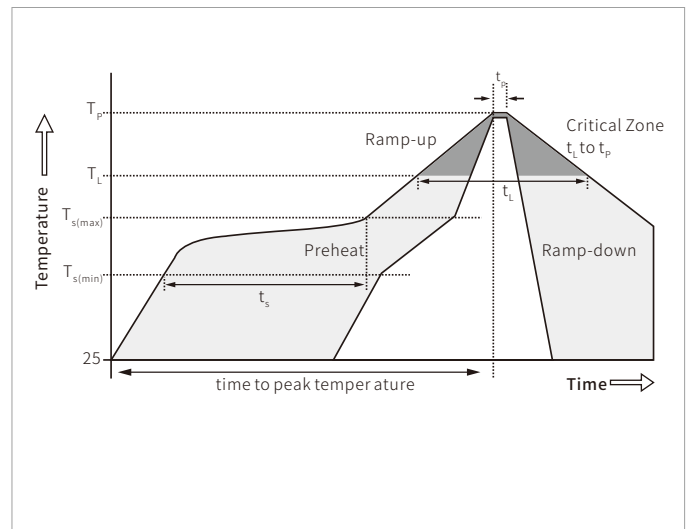
Part Number	Ambient Operation Temperature								
	-40 °C	-20 °C	0 °C	25 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SMD0805-005	0.07	0.063	0.058	0.05	0.043	0.035	0.03	0.025	0.018
SMD0805-005-24	0.07	0.063	0.058	0.05	0.043	0.035	0.03	0.025	0.018
SMD0805-010	0.14	0.125	0.115	0.10	0.085	0.07	0.06	0.05	0.035
SMD0805-010-24	0.14	0.125	0.115	0.10	0.085	0.07	0.06	0.05	0.035
SMD0805-020	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805-020-12	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805-020-16	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805-020-30	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805-025	0.35	0.31	0.29	0.25	0.21	0.18	0.15	0.013	0.09
SMD0805-030	0.42	0.38	0.35	0.30	0.255	0.21	0.18	0.15	0.11
SMD0805-035	0.47	0.44	0.39	0.35	0.30	0.27	0.24	0.20	0.14
SMD0805-035-12	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
SMD0805-050-9	0.68	0.62	0.55	0.50	0.40	0.37	0.33	0.29	0.23
SMD0805-050-12	0.68	0.62	0.55	0.50	0.40	0.37	0.33	0.29	0.23
SMD0805-050-16	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	1.10	1.00	0.82	0.74	0.65	0.55	0.42
SMD0805-110	1.45	1.35	1.20	1.10	0.92	0.84	0.75	0.65	0.52

DIMENSIONS

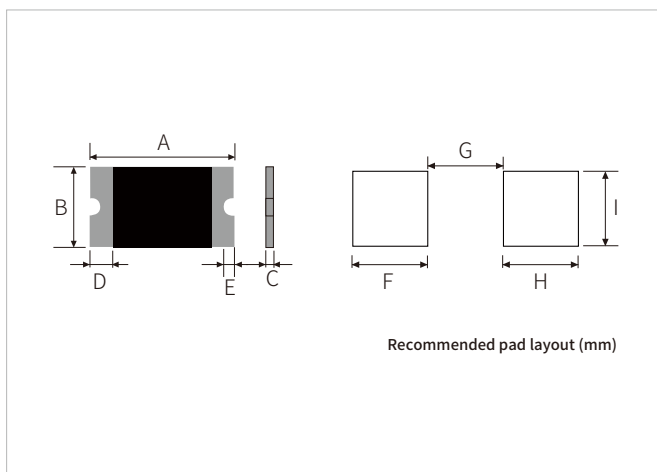
Type Number	Package Dimensions (mm)							
	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
SMD0805-005	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10
SMD0805-005-24	2.00	2.20	1.20	1.50	0.45	0.80	0.20	0.10
SMD0805-010	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SMD0805-010-24	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10
SMD0805-020	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SMD0805-020-12	2.00	2.20	1.20	1.50	0.45	1.00	0.20	0.10
SMD0805-020-16	2.00	2.20	1.20	1.50	0.45	0.70	0.20	0.10
SMD0805-020-30	2.00	2.20	1.20	1.50	0.55	1.20	0.20	0.10
SMD0805-025	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SMD0805-030	2.00	2.20	1.20	1.50	0.30	1.00	0.20	0.10
SMD0805-035	2.00	2.20	1.20	1.50	0.30	1.00	0.20	0.10
SMD0805-035-12	2.00	2.20	1.20	1.50	0.40	1.00	0.20	0.10
SMD0805-050	2.00	2.20	1.20	1.50	0.40	0.80	0.20	0.10
SMD0805-050-9	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10
SMD0805-050-12	2.00	2.20	1.20	1.50	0.60	1.20	0.20	0.10
SMD0805-050-16	2.00	2.20	1.20	1.50	0.60	1.20	0.20	0.10
SMD0805-075	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10
SMD0805-100	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10
SMD0805-110	2.00	2.20	1.20	1.50	0.50	1.20	0.20	0.10

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 $T_s(max)$ 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

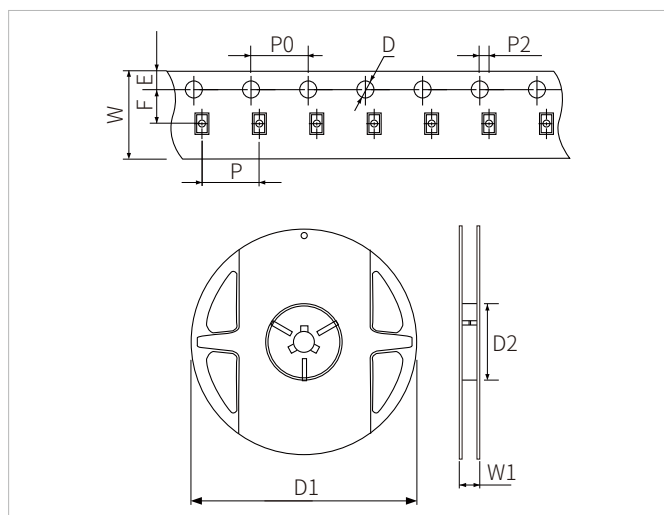


PACKAGE MECHANICAL DATA



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



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

ORDERING INFORMATION

Part Number	Model	QTY/Reel	Reel Size
SMD0805-xxxx	SMD0805-005~SMD0805-050	5000PCS	7"
	SMD0805-075~SMD0805-110	4000PCS	
	SMD0805-020-30	3500PCS	

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