

TERMINAL PAD SOLDERABILITY:
 Meets EIA Specification RS186-9E
 And ANSI/J-STD-002 Category 3.

TERMINAL PAD MATERIALS:

Tin-Plated Nickel-Copper
 Lead-Free, ROHS Compliant

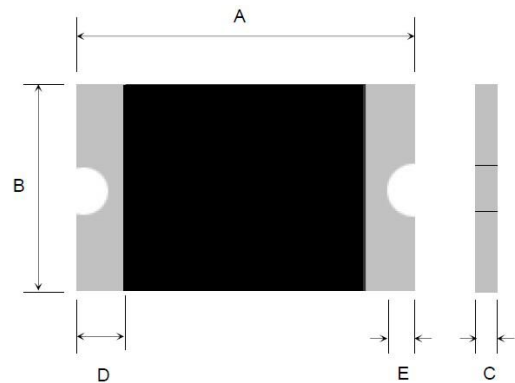


TABLE I. DIMENSIONS:

Unit: mm

Model	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
1812-050,30V	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25

TABLE II. PERFORMANCE RATINGS:

Model	Vmax	Imax	Ihold@25	Itrip@25	Pd Typ	Maximum Time TO Trip		Resistance	
	(Vdc)	(A)	(A)	(A)	(W)	Current (A)	Time (Sec)	Rimin (Ω)	Rimax (Ω)
1812-050,30V	30.0	100	0.50	1.00	0.8	8.0	0.15	0.15	1.00

Note:

Ihold=Hold current: maximum current device will pass without tripping in 23°C still air.

Itrip=Trip current: minimum current at which the device will trip in 23°C still air.

Vmax=Maximum voltage device can withstand without damage at rated current (Imax) .

Imax=Maximum fault current device can withstand without damage at rated voltage (Vmax) .

Pd=Power dissipated from device when in the tripped state at 23°C still air.

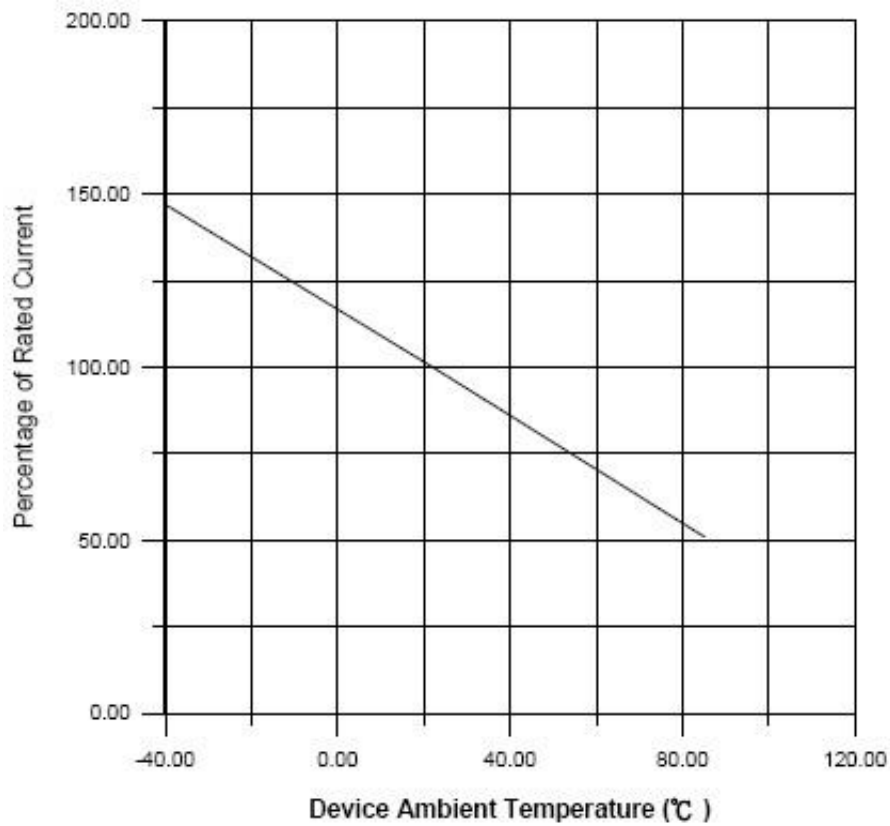
Rmin=Minimum resistance of device in initial (un-soldered) state.

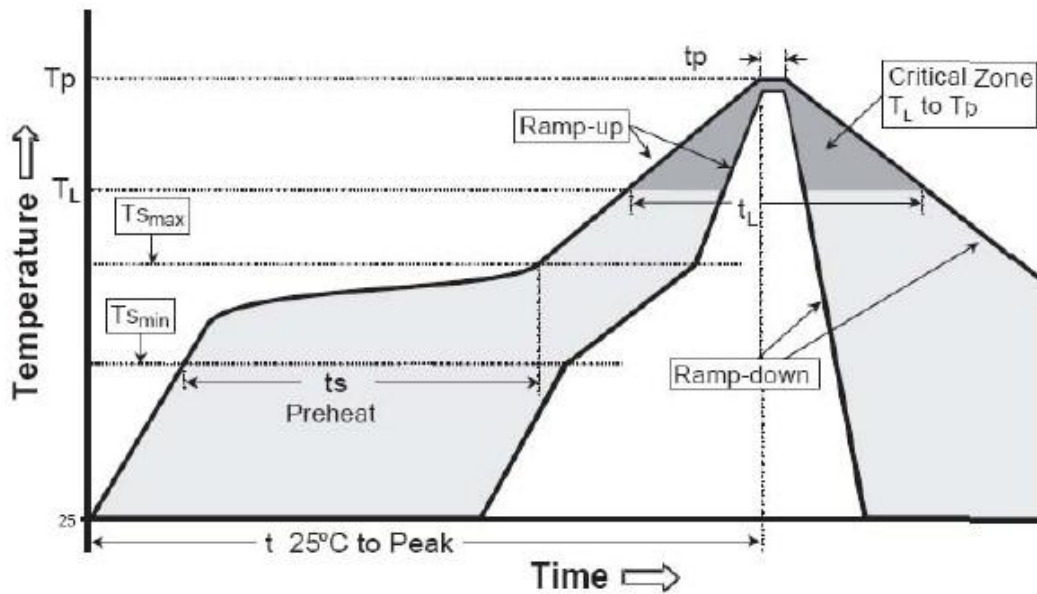
R1max=Maximum resistance of device at 23°C measured one hour after tripping or reflow soldering of 260°C for 20sec.

**THERMAL DERATING CHART FOR SMD1812 SERIES-IHOLD(Amps)
RECOMMENDED DATA**

Model	Ambient Operation Temperature								
	-40℃	-20℃	0℃	23℃	40℃	50℃	60℃	70℃	85℃
1812-050,30V	0.77	0.68	0.59	0.50	0.44	0.40	0.37	0.33	0.29

THERMAL DERATING CURVE FOR SMD1812 SERIES



SOLDER REFLOW

RECOMMENDED CONCITIONS

Profile Feature	Pd-Free Assembly
Average Ramp-Up Rate(T_{smax} to T_p)	3°C/second max
Preheat —Temperature Min(T_{smin}) —Temperature Max(T_{smax}) —Time(T_{smin} to T_{smax})	150°C 200°C 60-180seconds
Time maintained above: —Temperature(T_L) —Time(t_L)	217°C 60-150seconds
Peak Temperature(T_p)	260°C
Time within 5°C of actual Peak Temperature(t_p)	20-40seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	8minutes max.
Storage Condition	0°C~35°C, ≤70%RH

Note: 1.All temperature refer to topside of the package, measured on the package body surface.
2.If reflow temperature exceed the recommended profile, devices

PACKAGING

Part Number	Component Package	Quantity
1812-050/30V	1812	1500