

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

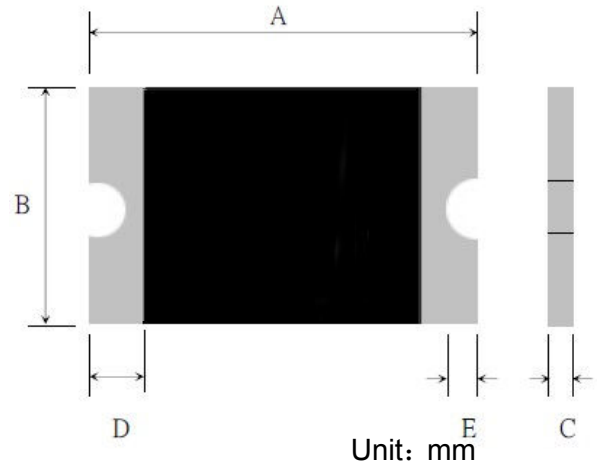


TABLE I. DIMENSIONS:

Model	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
mSMD1812-150,24V	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25

Unit: mm

TABLE II. PERFORMANCE RATINGS:

Model	Vmax	I _{max}	I _{hold@25}	I _{trip@25}	P _d	Maximum Time TO Trip		Resistance	
	(Vdc)	(A)	(A)	(A)	(W)	Current (A)	Time (Sec)	R _{min} (Ω)	R _{max} (Ω)
mSMD1812-150,24V	24.0	100	1.50	3.00	0.8	8.0	0.50	0.040	0.160

Note:

I_{hold}=Hold current: maximum current device will pass without tripping in 23°C still air.

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

V_{max}=Maximum 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}).

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

R_{min}=Minimum resistance of device in initial (un-soldered) state.

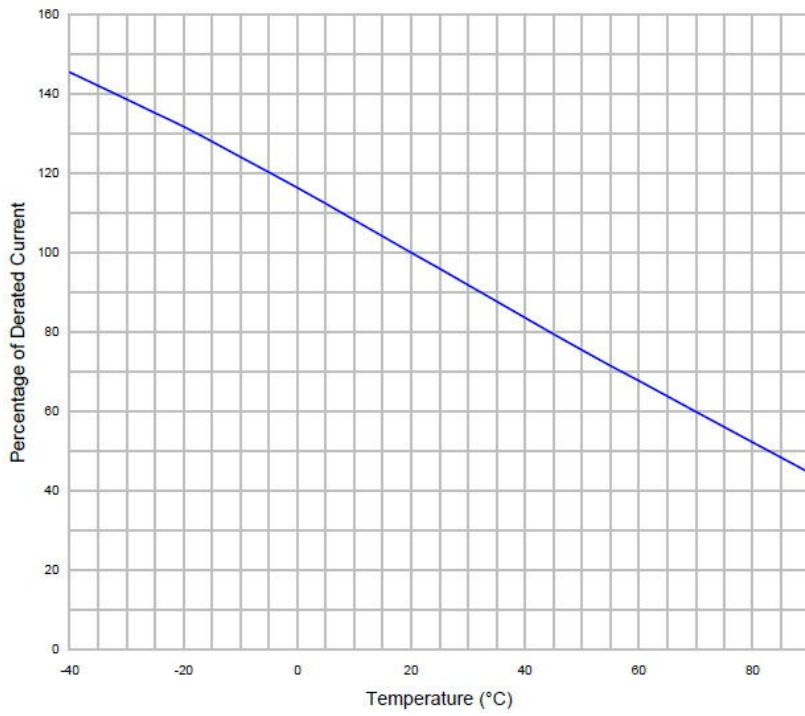
R_{1max}=Maximum resistance of device at 23°C measured one hour after tripping or reflow soldering of 260°C for 20sec.

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

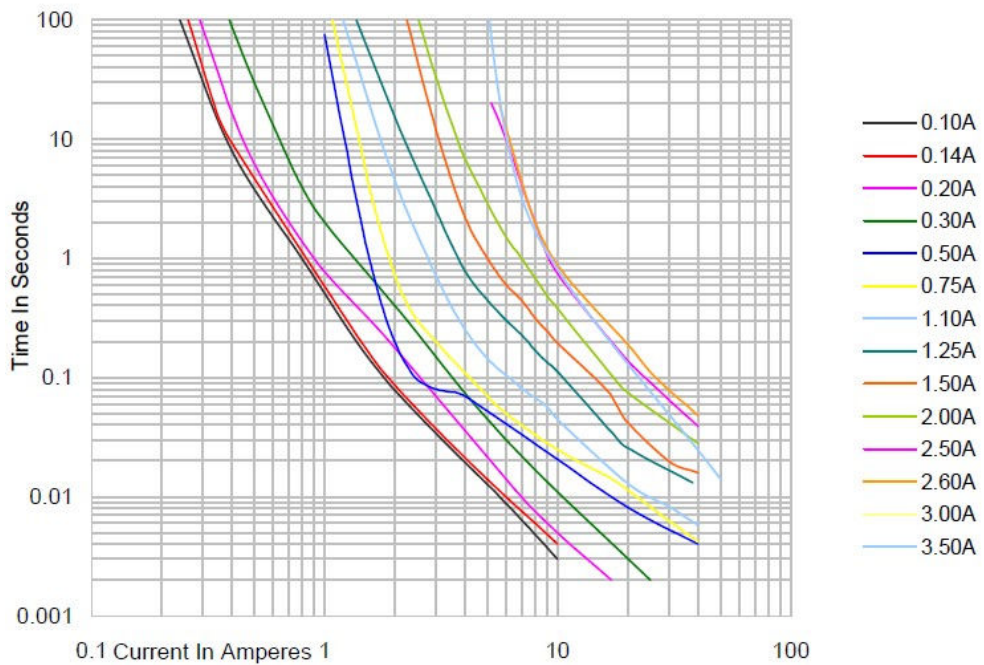
Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	23°C	40°C	50°C	60°C	70°C	85°C
mSMD1812-150,24V	2.28	2.03	1.75	1.50	1.21	1.07	0.93	0.79	0.58

THERMAL DERATING CURVE

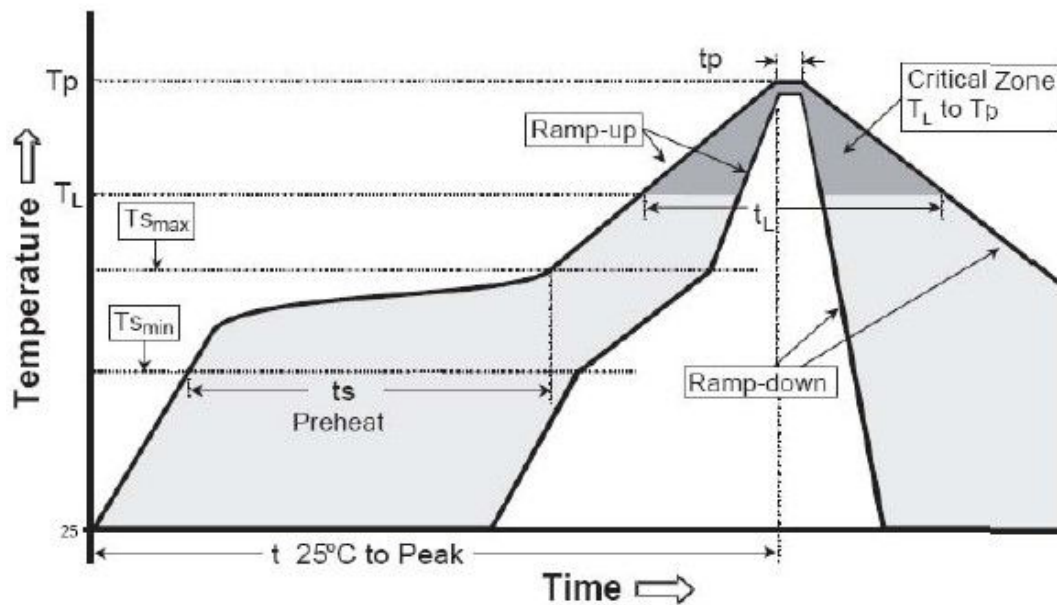
Derating Curves for mSMD Series



Average Time Current Curves



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
mSMD1812-150,24V	1812	1500