FEATURES

- Surface Mount Devices.
- Lead free device.
- Size 4.5×3.2mm/0.18×0.12 inch.
- Surface Mount packaging for automated assembly.

APPLICATIONS

Almost anywhere there is a low voltage power supply, up to 60V and a load to be protected, including：

- Computer mother board,Modem,USB nub
- PDAs & Charger, Analog & digital line card
- Digital cameras, Disk drivers,CD-ROMs,

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)
1812-260,8V	8.0	100	2.60	5.00	0.8	8.0	2.50	0.015	0.050

Note:

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

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

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

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

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

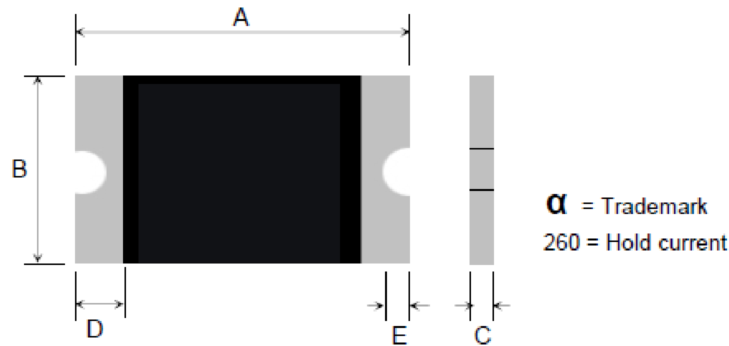
Rmin=Minimum resistance of device in initial （un-soldered）state.

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

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

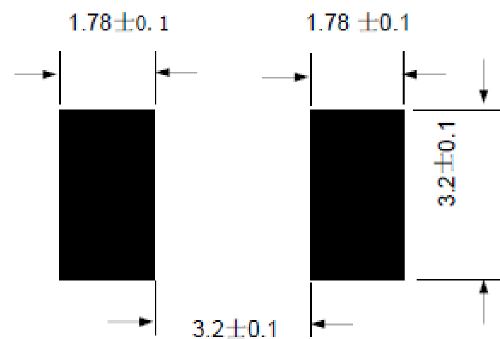
Model	Ambient Operation Temperature								
	-40℃	-20℃	0℃	23℃	40℃	50℃	60℃	70℃	85℃
1812-260,8V	3.90	3.42	2.96	2.60	2.33	2.07	1.94	1.35	1.00

DIMENSIONS & MARKING

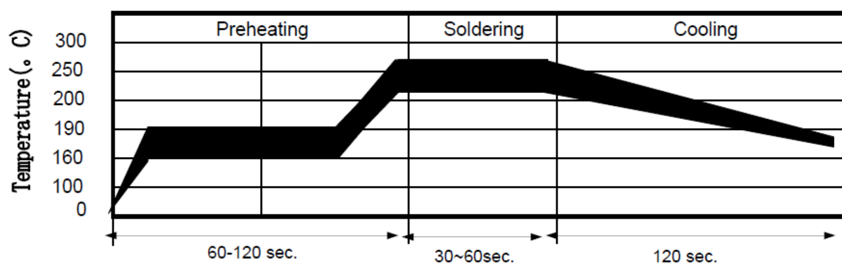


Model	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
1812-260,8V	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25

RECOMMENDED PAD LAYOUT (mm)



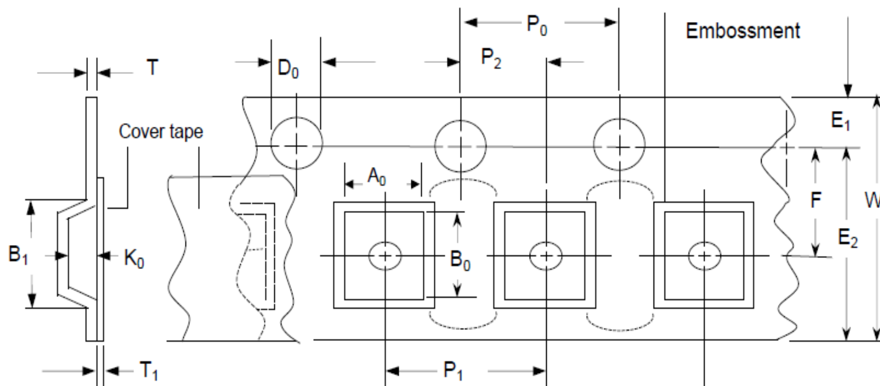
RECOMMENDED SOLDER REFLOW CONDITIONS



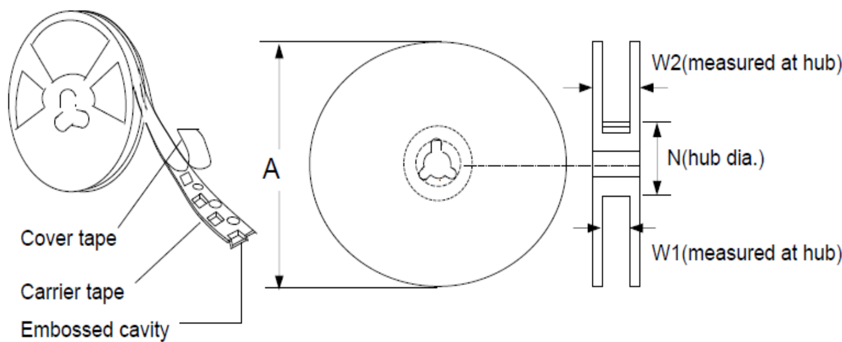
- Recommended reflow methods：IR,vapor phase oven, hot air oven.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Devices can be cleaned using standard method and solvents.
- Recommended maximum paste thickness is 0.25mm(0.010 inch).

Note： If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

EIA TAP COMPONENT DIMENSIONS(mm)



EIA Reel Dimensions

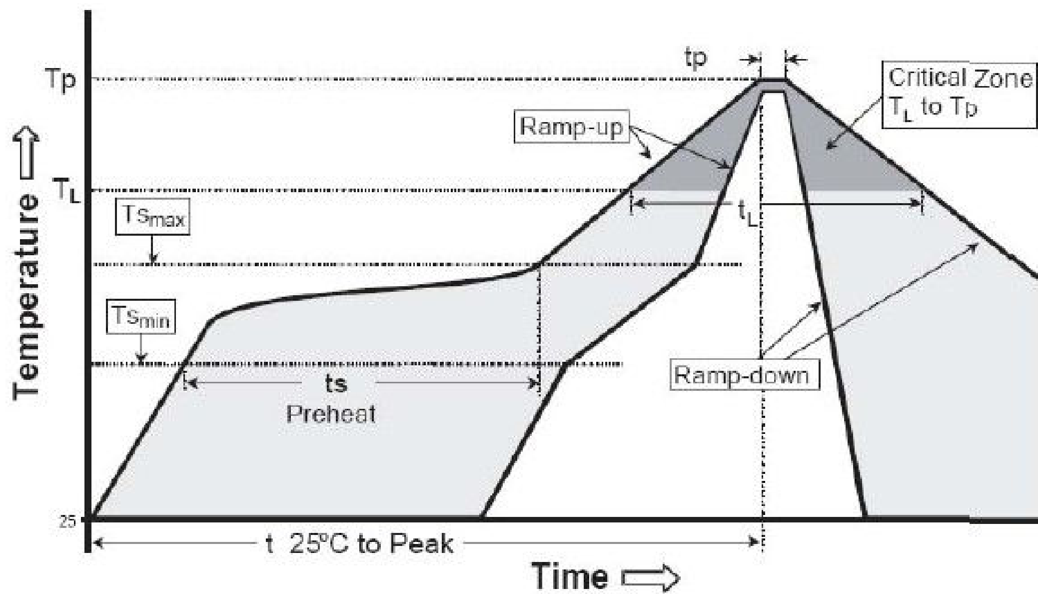


GOVERNING SPECIFICATION	EIA 481-1
W	12±0.3
P0	4.0±0.1
P1	8.0±0.1
P2	2.0±0.05
A0	3.5±0.23
B0	5.1±0.15
B1max.	5.9
D0	1.5+0.1,-0
F	5.5±0.05
E1	1.75±0.10
E2min.	10.25
Tmax.	0.6
T1max.	0.1
K0	0.9±0.15
Leader min.	390
Trailer min.	160
Reel Dimensions	
A max.	178
N min.	60
W1	12.4+2.0,-0.0
W2max.	18.4
Tap & Reel Quantity	1500

STORAGE AND HANDLING

- Storage conditions：40℃max,70% R.H.
- Devices may not meet specified performance if storage conditions are exceeded.

SOLDER REFLOW



RECOMMENDED CONCITIONS

Profile Feature	Pd-Free Assembly
Average Ramp-Up Rate(Tsmax to Tp)	3℃/second max
Preheat —Temperature Min(Tsmin) —Temperature Max(Tsmax) —Time(Tsmin to Tsmax)	150℃ 200℃ 60-180seconds
Time maintained above： —Temperature(TL) —Time(tL)	217℃ 60-150seconds
Peak Temperature(Tp)	260℃
Time within 5℃ of actual Peak Temperature(tp)	20-40seconds
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8minutes max.
Storage Condition	0℃~35℃，≤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