

Performance Specification

Model	Vmax (V dc)	Imax (A)	I hold @25C (A)	I trip @25C (A)	Pd Typ. (W)	Max time to Trip		Resistance	
						Current (A)	Time (Sec)	R i min (Ohm)	R i max (Ohm)
0603Z010-15	15.0	40	0.10	0.30	0.5	0.5	1.00	0.900	6.000
0603Z020-09	9.0	40	0.20	0.50	0.5	1.0	0.60	0.550	3.500
0603Z025-09	9.0	40	0.25	0.55	0.5	8.0	0.08	0.500	3.000
0603Z035-06	6.0	40	0.35	0.75	0.5	8.0	0.10	0.200	1.400
0603Z050-06	6.0	40	0.50	1.00	0.5	8.0	0.10	0.100	0.800
0603Z075-06	6.0	40	0.75	1.40	0.5	8.0	0.10	0.060	0.450
0603Z100-06	6.0	40	1.00	2.00	0.5	8.0	0.10	0.040	0.300

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.

V max = Maximum operating voltage device can withstand without damage at rated current (Imax).

I max = Maximum fault current device can withstand without damage at rated voltage (V max).

Pd = 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.

R1max = Maximum device resistance is measured one hour post reflow.

CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

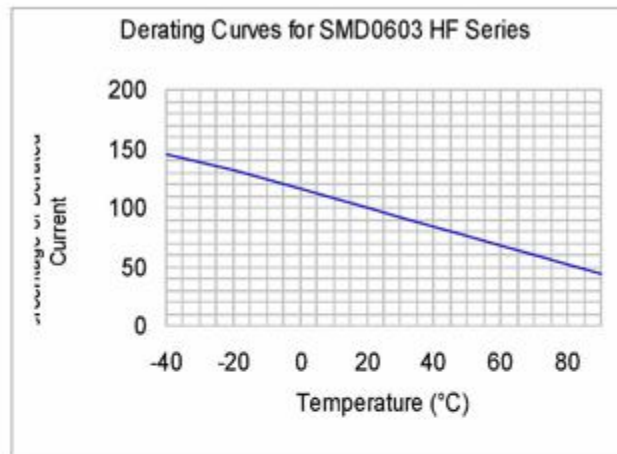
Environmental Specifications

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hrs.	±5% typical
Humidity aging	+85°C, 85% R.H. , 168 hours	±5% typical
Thermal shock	+85°C to -40°C, 20 times	±33% typical
Resistance to solvent	MIL-STD-202, Method 215	No change
Vibration	MIL-STD-202, Method 201	No change
Ambient operating conditions : - 40 °C to +85 °C		
Maximum surface temperature of the device in the tripped state is 125 °C		

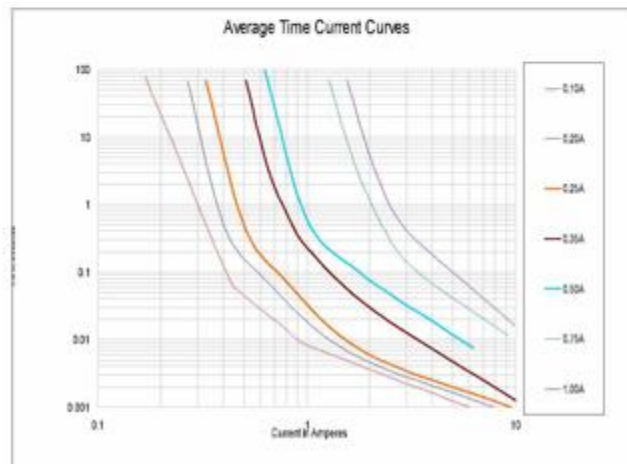
Termal Derading Chart

Recommended Hold Current (A) at Ambient Temperature (C)									
Model	Ambient Operation Temperature								
	-40C	-20C	0C	25C	40C	50C	60C	70C	85C
0603Z010-15	0.13	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03
0603Z020-09	0.27	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
0603Z025-09	0.32	0.29	0.27	0.25	0.21	0.18	0.16	0.05	0.03
0603Z035-06	0.47	0.41	0.38	0.35	0.29	0.26	0.24	0.20	0.14
0603Z050-06	0.67	0.59	0.54	0.50	0.41	0.37	0.34	0.29	0.20
0603Z075-06	0.98	0.85	0.81	0.75	0.60	0.54	0.44	0.40	0.31
0603Z100-06	1.30	1.12	1.08	1.00	0.80	0.72	0.58	0.53	0.42

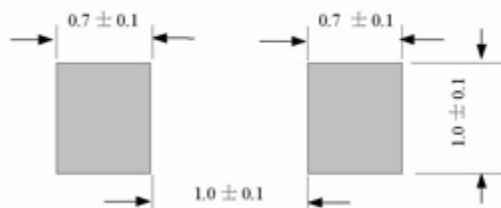
Thermal Derating Curve



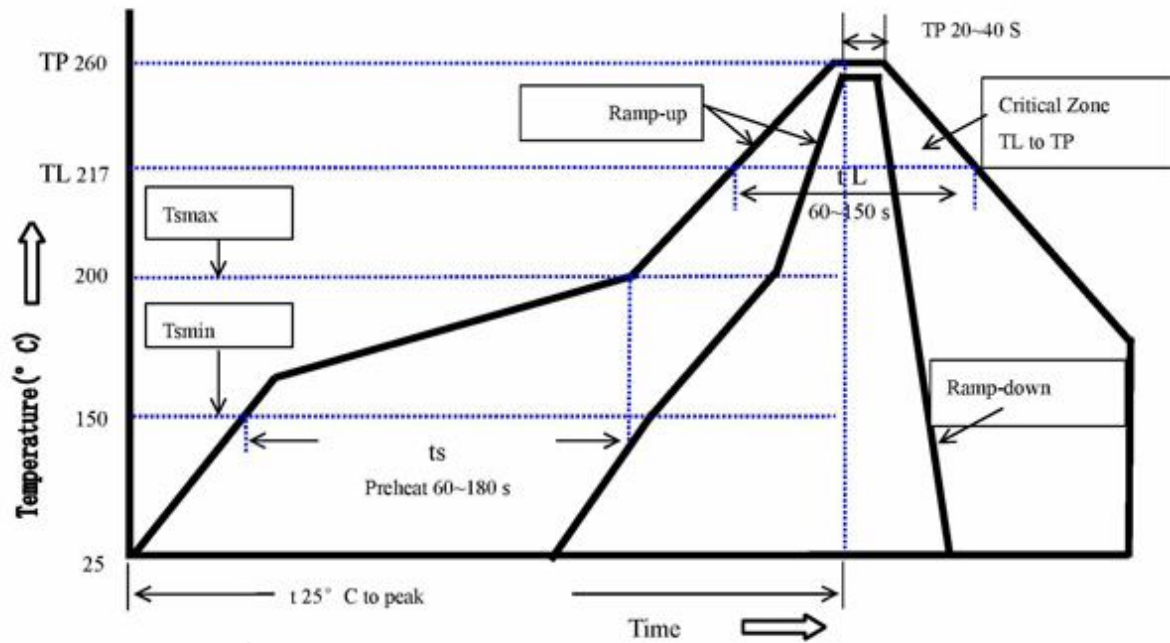
Average Time-Current Curve



Recommended Pad Layout (mm.)



Soldering Parameters



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate(Ts max to T p)	3°C/second max.
Preheat	
-Temperature Min(Ts min)	150°C
-Temperature Max(Ts max)	200°C
-Time(Ts min to Ts max)	60~180 seconds
Time maintained above:	
-Temperature(TL)	217°C
-Time(tL)	60~150 seconds
Peak Temperature(Tp)	260°C
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max
Storage Condition	0°C~35°C, ≤70%RH

Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free

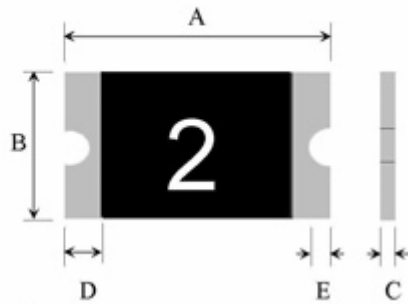
Recommended maximum paste thickness is 0.25mm

Devices can be cleaned using standard industry methods and solvents.

Note 1: All temperature refer to topside of the package, measured on the package body surface.

Note 2: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Physical Dimensions(mm.)



Model	A		B		C		D	E
	Min	Max	Min	Max	Min	Max	Min	Min
0603Z010-15	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
0603Z020-09	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
0603Z025-09	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
0603Z035-06	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
0603Z050-06	1.45	1.85	0.65	1.05	0.50	1.10	0.15	0.10
0603Z075-06	1.45	1.85	0.65	1.05	0.50	1.10	0.15	0.10
0603Z100-06	1.45	1.85	0.65	1.05	0.50	1.10	0.15	0.10

Termination Pad Characteristics

Terminal pad materials: Tin-plated Nickel-Copper

Terminal pad solder ability: Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3.

Tape And Reel Specifications (mm)

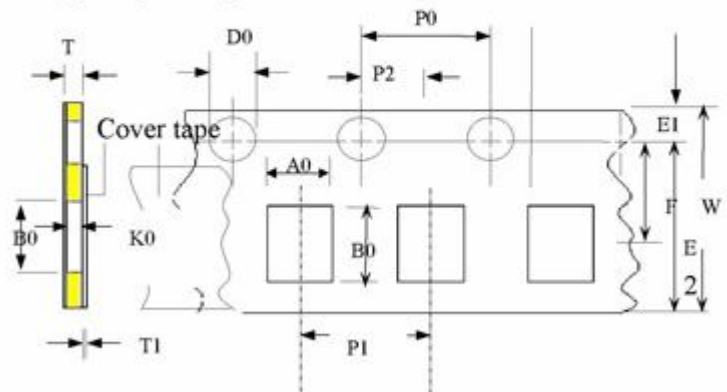
Governing Specifications

W	8.0 ± 0.2
P ₀	4.0 ± 0.10
P ₁	4.0 ± 0.10
P ₂	2.0 ± 0.05
A ₀	1.05 ± 0.10
B ₀	1.85 ± 0.10
D ₀	1.55 ± 0.05
F	3.5 ± 0.05
E ₁	1.75 ± 0.10
E ₂ min.	6.25
T	0.75
T ₁ max.	0.1
K ₀	0.75/0.95 ± 0.1
Leader min.	390
Trailer min.	160

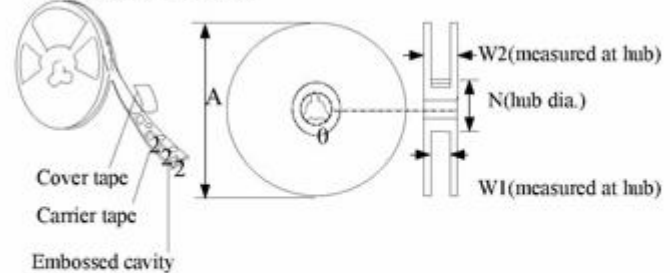
Reel Dimensions

A max.	178
N min.	60
W ₁	9.0 ± 0.5
W ₂	12.0 ± 0.05

Paper Tape Component Dimensions



EIA Reel Dimensions



Storage And Handling

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