

**Features**

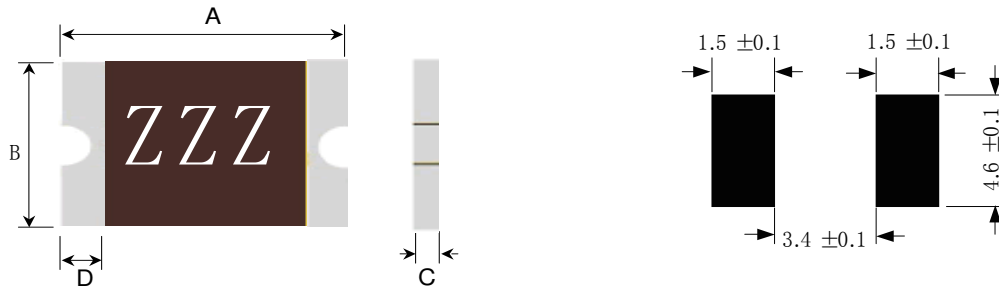
- Surface Mount Devices
- Lead free device
  - Size 5045mm/2018 mils
  - Surface Mount packaging for automated assembly
- Agency recognition:

**Applications**

Almost anywhere there is a low voltage power supply, up to DC60V and a load to be protected, including:

- Computer mother board, Modem.
- Telecommunication equipments

**Dimensions (mm)**



**Product dimensions (mm)**

Model	A		B		C		D
	min	max	min	max	min	max	min
TSM030	4.44	4.72	4.22	4.93	0.60	1.10	0.30
TSM050	4.44	4.72	4.22	4.93	0.60	1.10	0.30
TSM100	4.44	4.72	4.22	4.93	0.45	0.80	0.30
TSM100/33	4.44	4.72	4.22	4.93	0.45	0.80	0.30
TSM150	4.44	4.72	4.22	4.93	0.45	0.80	0.30
TSM200	4.44	4.72	4.22	4.93	0.45	0.80	0.30

**Environmental Specifications**

Test	Conditions	Resistance change
Passive aging	85°C, 1000hrs	±5% typical
Humidity aging	85°C, 85% CR.H., 168hrs	±5% typical
Thermal shock	85°C, to -40°C, 13times	±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 of the device in the tripped state is 125°C**

**Termination pad characteristics**

Terminal pad materials	Tin-Plated Nickle-Copper or Gold-Plated Nickle-Copper
Terminal pad solderability	Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3.

**Electrical characteristics(25°C)**

Model	Ihold	Itrip	Vmax	Imax	Pd max	Maximum Time To Trip		Resistance	
						Current	Time	Rmin	Rmax
	(A)	(A)	(Vdc)	(A)	(w)	(A)	(S)	(Ω)	(Ω)
TSM030	0.30	0.60	60	100	0.9	1.50	3.0	0.500	2.300
TSM050	0.55	1.20	60	100	1.0	2.5	3.00	0.200	1.000
TSM100	1.00	2.20	15	100	1.1	8.0	0.40	0.060	0.360
TSM100/33	1.00	2.20	33	100	1.1	8.0	0.4	0.060	0.360
TSM150	1.50	3.00	15.0	100	1.1	8.0	0.8	0.050	0.170
TSM200	2.00	4.00	10	100	1.1	8.0	2.4	0.030	0.100

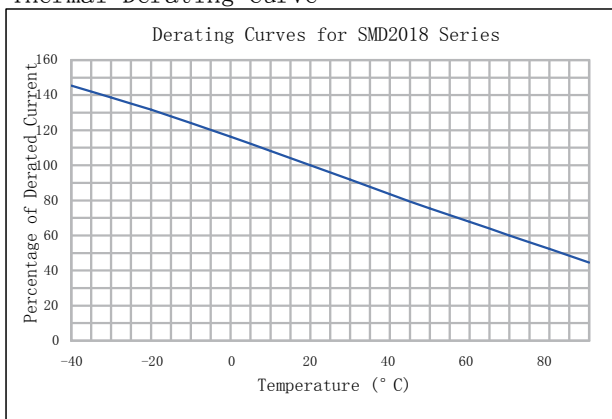
Ihold Hold Current:Maximum current device will not trip in 25°C still air.  
 Itrip Trip current:Minimum current at which the device will always trip in 25°C still air  
 Vmax Maximum operating volatge device can withstand without damage at ratde curren  
 Imax Maximum fault current device can withstand without damage at rated voltage(Vm  
 Pd Typical power dissipatde from device when in the tripped state in 25°C still air.  
 Rmin/max Minimum/Maximum device resistance prior to tripping at 25°C.  
 R1max Maximum resistance of device at 25°C measured one hour after trippde tripping.

\*CAUTION Operation beyond the specified rating may result in damage and possible arcing.

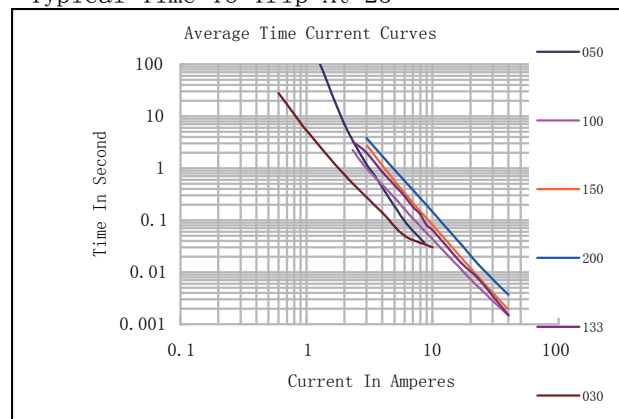
**Ihold versus tempetature**

Model	maximun ambient operating temperature(Tmao)vs.hold current(Ihold)								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
TSM030	0.480	0.42	0.350	0.30	0.240	0.21	0.17	0.15	0.100
TSM050	0.87	0.77	0.67	0.55	0.460	0.41	0.36	0.31	0.23
TSM100	1.71	1.52	1.32	1.00	0.940	0.84	0.74	0.64	0.50
TSM100/33	1.71	1.52	1.32	1.00	0.940	0.84	0.74	0.64	0.50
TSM150	2.38	2.10	1.82	1.50	1.270	1.13	0.99	0.85	0.64
TSM200	2.95	2.65	2.35	2.00	1.740	1.59	1.44	1.29	1.06

Thermal Derating Curve



Typical Time-To-Trip At 25



**Package Information**

Reel:

TSM030~050	1500pcs/Reel
TSM100~200	2500pcs/Reel