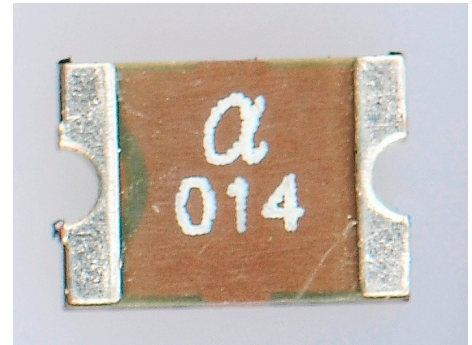


Type mSMD (1812) Series

Surface-mount Resettable Devices



Agency File Number

UL E201504/E319079

Electrical Characteristic

Operating/Storage Temperature

-40°C to +85°C

Maximum Device Surface Temperature

In Tripped State 125°C

Passive Aging

+85°C, 1000Hours, ±5% Typical Resistance Change

Humidity Aging

+85°C, 85%R.H., 168Hours, ±5% Typical Resistance Change

Thermal Shock:

MIL-STD-202, Method 215, +85°C / -40°C,

20 Times, ±33% Typical Resistance Change

Vibration

MIL-STD-202, Method 201, No Resistance Change

Material

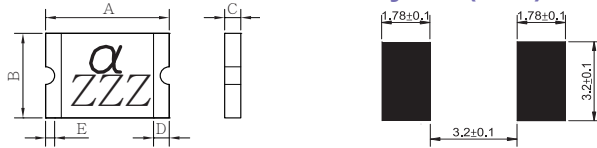
Tin-Plated Nickle-Copper or Gold-Plated Nicke-Copper

Packaging

Tape & Reel Quantity 1,500 pcs/reel

Electrical Specification

Mechanical Dimension Recommended pad layout (mm)



Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
mSMD010	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD014	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD020	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD030	4.37	4.73	3.07	3.41	0.50	1.00	0.30	0.25
mSMD050	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD050-33V	4.37	4.73	3.07	3.41	0.70	1.30	0.30	0.25
mSMD050-60V	4.37	4.73	3.07	3.41	1.10	1.80	0.30	0.25
mSMD075	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD110	4.37	4.73	3.07	3.41	0.40	0.90	0.30	0.25
mSMD110-16V	4.37	4.73	3.07	3.41	0.60	0.90	0.30	0.25
mSMD125	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
mSMD150	4.37	4.73	3.07	3.41	0.30	1.30	0.30	0.25
mSMD150-16V	4.37	4.73	3.07	3.41	0.30	0.80	0.30	0.25
mSMD160	4.37	4.73	3.07	3.41	0.30	0.80	0.30	0.25
mSMD200	4.37	4.73	3.07	3.41	0.40	0.80	0.30	0.25
mSMD260	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
mSMD300	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.25
mSMD350	4.37	4.73	3.07	3.41	0.50	1.20	0.30	0.25

Model	V _{max} (Vdc)	I _{max} (A)	I _{hold} @25°C (A)	I _{trip} @25°C (A)	P _d Max. (W)	Maximum Time To Trip		Resistance		Agency Approval	
						Current (A)	Time (Sec)	R _i min (Ω)	R ₁ max (Ω)	UL	TUV
mSMD010	30.0	100	0.10	0.30	0.8	0.5	1.50	0.750	15.00		
mSMD014	60.0	100	0.14	0.34	0.8	1.5	0.15	0.650	6.000		
mSMD020	30.0	100	0.20	0.40	0.8	8.0	0.02	0.350	5.000		
mSMD030	30.0	100	0.30	0.60	0.8	8.0	0.10	0.250	3.000		
mSMD050	15.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.000	*	
mSMD050-33V	33.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.000		
mSMD050-60V	60.0	100	0.50	1.00	0.8	8.0	0.15	0.150	1.400		
mSMD075	13.2	100	0.75	1.50	0.8	8.0	0.20	0.090	0.450	*	
mSMD110	8.00	100	1.10	2.20	0.8	8.0	0.30	0.050	0.250	*	
mSMD110-16V	16.0	100	1.10	2.20	0.8	8.0	0.30	0.050	0.250		
mSMD125	16.0	100	1.25	2.50	0.8	8.0	0.40	0.050	0.140		
mSMD150	8.00	100	1.50	3.00	0.8	8.0	0.50	0.040	0.160	*	
mSMD150-16V	16.0	100	1.50	3.00	0.8	8.0	0.50	0.040	0.160		
mSMD160	8.00	100	1.60	2.80	0.8	8.0	1.00	0.030	0.130		
mSMD200	8.00	100	2.00	4.00	0.8	8.0	2.00	0.020	0.100	*	
mSMD260	8.00	100	2.60	5.00	0.8	8.0	2.50	0.015	0.050		
mSMD300	8.00	100	3.00	5.00	0.8	8.0	4.00	0.012	0.040		
mSMD350	6.00	100	3.50	6.00	2.0	10.0	4.00	0.008	0.030		

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 (I_{max}).

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max}).

P_d = Power dissipation when device is in the tripped state in 25°C still air environment at rated voltage.

R_imin/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.