

Type nSMD (1206) Series

Surface-mount Resettable Devices



Agency File Numbers

UL E201504/E319079 ; TUV NO.R-50141892

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

Materials

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

Packaging

Tape & Reel Quantity

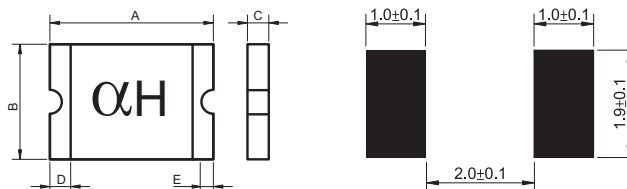
005,010,050-13.2V,150,200---3,500 pcs/reel

The others-----5,000 pcs/reel

Electrical Specification

Mechanical Dimensions

Recommended pad layout (mm)



Physical and Dimension(Unit: mm)

Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
nSMD005	3.00	3.50	1.50	1.80	0.60	1.10	0.15	0.10
nSMD010	3.00	3.50	1.50	1.80	0.60	1.10	0.15	0.10
nSMD012	3.00	3.50	1.50	1.80	0.60	1.10	0.15	0.10
nSMD020	3.00	3.50	1.50	1.80	0.40	0.90	0.15	0.10
nSMD025	3.00	3.50	1.50	1.80	0.40	0.90	0.15	0.10
nSMD035	3.00	3.50	1.50	1.80	0.40	0.90	0.15	0.10
nSMD050	3.00	3.50	1.50	1.80	0.35	0.85	0.15	0.10
nSMD050-13.2V	3.00	3.50	1.50	1.80	0.35	0.85	0.15	0.10
nSMD075	3.00	3.50	1.50	1.80	0.30	0.80	0.15	0.10
nSMD100	3.00	3.50	1.50	1.80	0.40	0.80	0.15	0.10
nSMD110	3.00	3.50	1.50	1.80	0.40	0.80	0.15	0.10
nSMD150	3.00	3.50	1.50	1.80	0.50	1.20	0.15	0.10
nSMD200	3.00	3.50	1.50	1.80	0.50	1.20	0.15	0.10

Model	Marking	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
nSMD005	αZ	60.0	100	0.05	0.15	0.4	0.25	1.50	3.600	50.0		
nSMD010	αN	60.0	100	0.10	0.25	0.4	0.50	1.00	1.600	15.0		
nSMD012	αN	60.0	100	0.12	0.29	0.4	0.50	1.00	1.600	15.0		
nSMD020	αA	24.0	100	0.20	0.46	0.6	8.00	0.08	0.350	2.70		
nSMD025	αA	16.0	100	0.25	0.50	0.6	8.00	0.08	0.350	2.50	*	
nSMD035	αB	6.0	100	0.35	0.75	0.6	8.00	0.10	0.250	1.30	*	
nSMD050	αF	6.0	100	0.50	1.00	0.6	8.00	0.10	0.150	0.70	*	
nSMD050-13.2V	αF	13.2	100	0.50	1.00	0.6	8.00	0.10	0.150	0.70	*	
nSMD075	αG	6.0	100	0.75	1.50	0.6	8.00	0.20	0.090	0.50	*	
nSMD100	αH	6.0	100	1.00	1.80	0.6	8.00	0.30	0.055	0.27	*	*
nSMD110	αH	6.0	100	1.10	2.20	0.6	8.00	0.30	0.050	0.25		
nSMD150	αI	6.0	100	1.50	3.00	0.8	8.00	1.00	0.040	0.13	*	
nSMD200	αK	6.0	100	2.00	3.50	0.8	8.00	1.50	0.018	0.08		

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.

R_{1max} = Maximum device resistance is measured one hour post reflow.

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