Description

The femtoSMDC series provides surface mount overcurrent protection for applications where space is at a premium and resettable protection is desired.

Features

- RoHS compliant, lead-free and halogen free
- Fast response to fault currents
- Compact design saves board space
- Low resistance，Low-profile
- Compatible with high temperature solders

Applications

- USB peripherals，Disk drives，CD-ROMs
- Plug and play protection for motherboards and peripherals
- PDAs / digital cameras
- Game console port protection
- Tablet and Notebook PCs
- E-readers

SMD0603 Series Performance Specification

Model	Marking	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance		Certification
							Current (A)	Time (Sec)	$R_{i\ min}$ (Ω)	R1max (Ω)	UL
SMD0603R001SF-1	X	60	20	0.01	0.03	0.5	0.2	1.00	15.000	100.000	
SMD0603R002SF-1	Y	60	20	0.02	0.06	0.5	0.2	1.00	12.000	70.000	
SMD0603R002SF9v-1	Y	9	20	0.02	0.06	0.5	0.2	1.00	12.000	70.000	√
SMD0603R003SF-1	Z	30	20	0.03	0.09	0.5	0.2	1.00	6.000	50.000	
SMD0603R003SF9v-1	Z	9	20	0.03	0.09	0.5	0.2	1.00	6.000	50.000	√
SMD0603R004SF-1	-	24.0	20	0.04	0.12	0.5	0.20	1.00	4.000	40.000	
SMD0603R005SF-1	-	15.0	20	0.05	0.15	0.5	0.25	1.00	3.800	30.000	
SMD0603R005SF9v-1	-	9.0	20	0.05	0.15	0.5	0.25	1.00	3.800	30.000	√
SMD0603R010SF-1	1	15.0	35	0.10	0.30	0.5	0.5	1.00	0.900	6.000	
SMD0603R010SF9v-1	1	9.0	35	0.10	0.30	0.5	0.5	1.00	0.900	6.000	√
SMD0603R020SF-1	2	9.0	35	0.20	0.50	0.5	1.0	0.60	0.550	3.500	√
SMD0603R020SF16v-1	2	16.0	35	0.20	0.50	0.5	1.0	0.60	0.550	3.500	
SMD0603R025SF-1	2	9.0	35	0.25	0.55	0.5	8.0	0.08	0.500	3.000	√
SMD0603R025SF16v-1	2	16.0	35	0.25	0.55	0.5	8.0	0.08	0.500	3.000	
SMD0603R035SF-1	3	6.0	35	0.35	0.75	0.5	8.0	0.10	0.200	1.000	
SMD0603R040SF-1	5	6.0	35	0.40	0.80	0.5	8.0	0.10	0.150	0.900	
SMD0603R050SF-1	5	6.0	35	0.50	1.00	0.5	8.0	0.10	0.100	0.800	
SMD0603R050SF12v-1	5	12.0	35	0.50	1.00	0.5	8.0	0.10	0.100	0.800	
SMD0603R060SF-1	7	6.0	35	0.60	1.20	0.5	8.0	0.10	0.080	0.600	
SMD0603R065SF-1	7	6.0	35	0.65	1.30	0.5	8.0	0.10	0.070	0.550	
SMD0603R075SF-1	7	6.0	35	0.75	1.40	0.5	8.0	0.10	0.060	0.450	
SMD0603R100SF-1	0	6.0	35	1.00	2.00	0.5	8.0	0.10	0.050	0.300	

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).

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.

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.

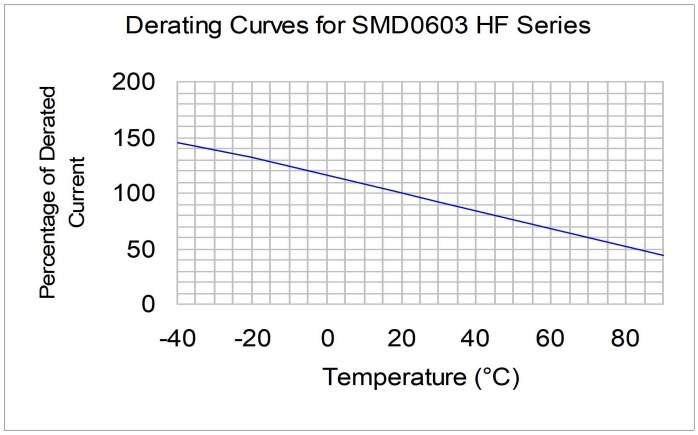
CAUTION : Operation beyond the specified ratings may result in damage and possible arcing and flame.

Thermal Derading Chart

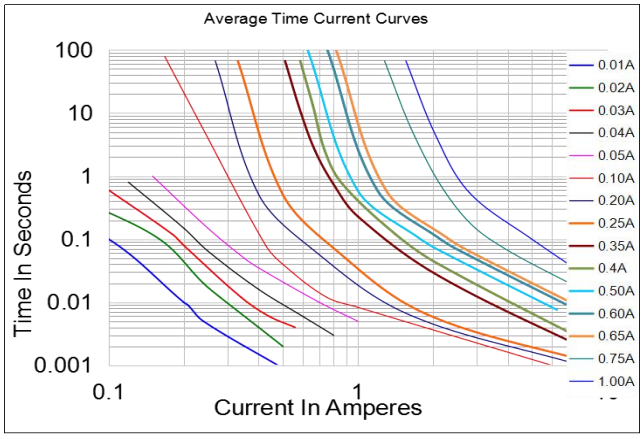
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD0603R001SF-1	0.016	0.014	0.012	0.010	0.008	0.007	0.006	0.005	0.0035
SMD0603R002SF-1	0.031	0.027	0.024	0.020	0.016	0.014	0.012	0.011	0.007
SMD0603R003SF-1	0.047	0.041	0.036	0.030	0.024	0.021	0.018	0.016	0.0108
SMD0603R004SF-1	0.052	0.048	0.044	0.040	0.032	0.028	0.024	0.020	0.012
SMD0603R005SF-1	0.065	0.060	0.055	0.050	0.040	0.035	0.031	0.025	0.015
SMD0603R010SF-1	0.13	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03
SMD0603R020SF-1	0.27	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0603R025SF-1	0.32	0.29	0.27	0.25	0.21	0.18	0.16	0.14	0.10
SMD0603R035SF-1	0.47	0.41	0.38	0.35	0.29	0.26	0.24	0.20	0.14
SMD0603R040SF-1	0.54	0.47	0.43	0.40	0.33	0.29	0.27	0.22	0.16
SMD0603R050SF-1	0.67	0.59	0.54	0.50	0.41	0.37	0.34	0.29	0.20
SMD0603R060SF-1	0.81	0.70	0.651	0.60	0.49	0.44	0.41	0.34	0.24
SMD0603R065SF-1	0.87	0.76	0.71	0.65	0.54	0.48	0.44	0.37	0.26
SMD0603R075SF-1	0.98	0.85	0.81	0.75	0.60	0.54	0.44	0.40	0.31
SMD0603R100SF-1	1.19	1.13	1.08	1.00	0.80	0.72	0.59	0.54	0.43

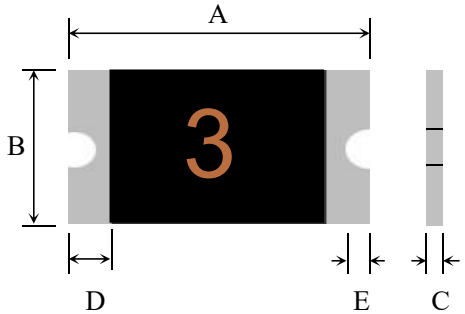
Thermal Derating Curve



Average Time-Current Curve



Physical Dimensions(mm.)



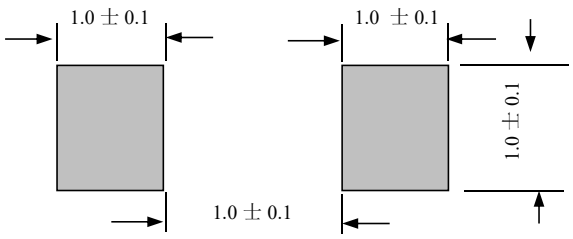
Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD0603R001SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R002SF9v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R002SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R003SF9v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R003SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R004SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R005SF9v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R005SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R010SF9v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R010SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R020SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R020SF16v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R025SF-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R025SF16v-1	1.45	1.85	0.65	1.05	0.40	1.00	0.15	0.10
SMD0603R035SF-1	1.45	1.85	0.65	1.05	0.35	0.90	0.15	0.10
SMD0603R040SF-1	1.45	1.85	0.65	1.05	0.40	0.90	0.15	0.10
SMD0603R050SF-1	1.45	1.85	0.65	1.05	0.55	1.15	0.15	0.10
SMD0603R050SF12v-1	1.45	1.85	0.65	1.05	0.55	1.15	0.15	0.10
SMD0603R060SF-1	1.45	1.85	0.65	1.05	0.55	1.15	0.15	0.10
SMD0603R065SF-1	1.45	1.85	0.65	1.05	0.55	1.15	0.15	0.10
SMD0603R075SF-1	1.45	1.85	0.65	1.05	0.55	1.15	0.15	0.10
SMD0603R100SF-1	1.45	1.85	0.65	1.05	0.55	1.15	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.

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD0603 HF Series	4,000 pcs/reel

Tape & reel packaging per EIA481-1

SMD0805 Series Performance Specification

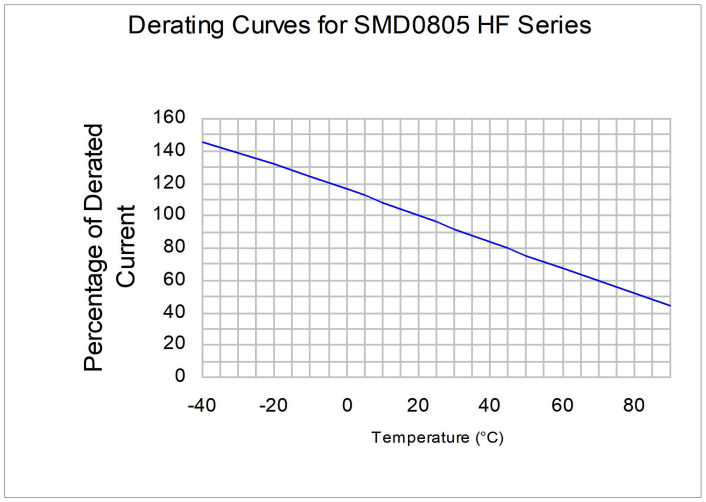
Model	Marking	V_{max} (Vdc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance		Certification
							Current (A)	Time (Sec)	$R_{i\,min}$ (Ω)	$R1_{max}$ (Ω)	UL
SMD0805R005SF-1	1	15.0	30	0.05	0.15	0.5	0.5	1.50	1.500	18.000	√
SMD0805R010SF-1	1	15.0	30	0.10	0.30	0.5	0.5	1.50	0.750	6.000	√
SMD0805R020SF-1	2	9.0	30	0.20	0.50	0.5	8.0	0.02	0.550	3.500	√
SMD0805R035SF-1	3	6.0	30	0.35	0.75	0.5	8.0	0.10	0.200	1.200	√
SMD0805R035SF12v-1	3	12.0	30	0.35	0.75	0.5	8.0	0.10	0.200	1.200	
SMD0805R050SF-1	5	6.0	30	0.50	1.00	0.5	8.0	0.10	0.100	0.850	√
SMD0805R050SF12v-1	5	12.0	30	0.50	1.00	0.5	8.0	0.10	0.100	0.850	
SMD0805R050SF16v-1	5	16.0	30	0.50	1.00	0.5	8.0	0.10	0.100	0.850	
SMD0805R050SF24v-1	5	24.0	30	0.50	1.00	0.5	8.0	0.10	0.100	0.850	
SMD0805R075SF-1	7	6.0	35	0.75	1.50	0.6	8.0	0.20	0.070	0.385	√
SMD0805R075SF12v-1	7	12.0	35	0.75	1.50	0.6	8.0	0.20	0.070	0.385	
SMD0805R100SF-1	0	6.0	35	1.00	1.95	0.6	8.0	0.30	0.040	0.230	√
SMD0805R100SF12v-1	0	12.0	35	1.00	1.95	0.6	8.0	0.30	0.040	0.230	
SMD0805R110SF-1	0	6.0	35	1.10	2.20	0.6	8.0	0.30	0.035	0.210	√
SMD0805R110SF12v-1	0	12.0	35	1.10	2.20	0.6	8.0	0.30	0.035	0.210	
SMD0805R125SF-1	12	6.0	35	1.25	2.50	1.5	8.0	0.60	0.025	0.140	√
SMD0805R150SF-1	15	6.0	35	1.50	3.00	1.0	8.0	0.50	0.015	0.130	√

Thermal Derading Chart

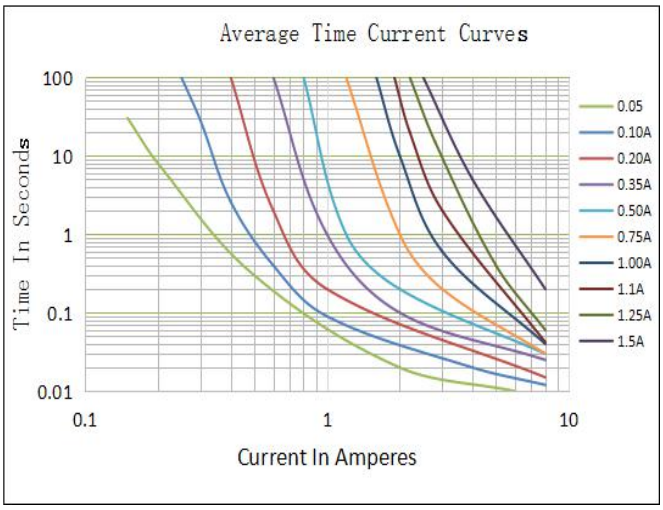
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD0805R005SF-1	0.070	0.060	0.055	0.050	0.040	0.035	0.030	0.025	0.015
SMD0805R010SF-1	0.14	0.12	0.11	0.10	0.08	0.07	0.06	0.05	0.03
SMD0805R020SF-1	0.28	0.25	0.23	0.20	0.17	0.14	0.12	0.10	0.07
SMD0805R035SF-1	0.47	0.44	0.39	0.35	0.30	0.27	0.24	0.20	0.14
SMD0805R050SF-1	0.68	0.62	0.55	0.50	0.40	0.37	0.33	0.29	0.23
SMD0805R075SF-1	1.00	0.90	0.79	0.75	0.63	0.57	0.53	0.41	0.34
SMD0805R100SF-1	1.35	1.25	1.15	1.00	0.82	0.74	0.65	0.55	0.42
SMD0805R110SF-1	1.45	1.35	1.20	1.10	0.92	0.84	0.75	0.65	0.52
SMD0805R125SF-1	1.65	1.53	1.36	1.25	1.05	0.95	0.85	0.74	0.59
SMD0805R150SF-1	1.98	1.84	1.63	1.50	1.26	1.14	1.02	0.88	0.71

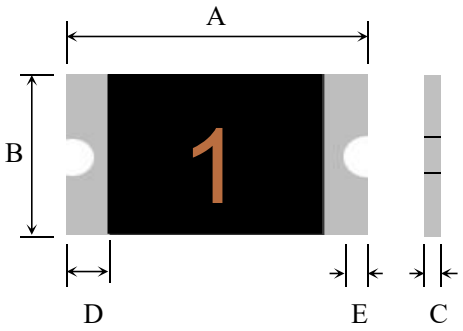
Thermal Derating Curve



Average Time-Current Curve

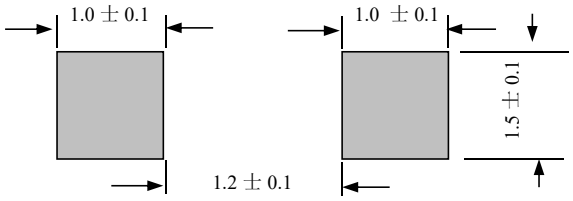


Physical Dimensions(mm.)



Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD0805R005SF-1	2.00	2.20	1.20	1.50	0.40	0.90	0.20	0.10
SMD0805R010SF-1	2.00	2.20	1.20	1.50	0.40	0.90	0.20	0.10
SMD0805R020SF-1	2.00	2.20	1.20	1.50	0.35	0.80	0.20	0.10
SMD0805R035SF-1	2.00	2.20	1.20	1.50	0.35	0.80	0.20	0.10
SMD0805R035SF12v-1	2.00	2.20	1.20	1.50	0.35	0.80	0.20	0.10
SMD0805R050SF-1	2.00	2.20	1.20	1.50	0.35	0.80	0.20	0.10
SMD0805R050SF12v-1	2.00	2.20	1.20	1.50	0.35	0.80	0.20	0.10
SMD0805R050SF16v-1	2.00	2.20	1.20	1.50	0.50	1.10	0.20	0.10
SMD0805R050SF24v-1	2.00	2.20	1.20	1.50	0.50	1.10	0.20	0.10
SMD0805R075SF-1	2.00	2.20	1.20	1.50	0.50	1.00	0.20	0.10
SMD0805R075SF12v-1	2.00	2.20	1.20	1.50	0.50	1.00	0.20	0.10
SMD0805R100SF-1	2.00	2.20	1.20	1.50	0.70	1.20	0.20	0.10
SMD0805R100SF12v-1	2.00	2.20	1.20	1.50	0.70	1.20	0.20	0.10
SMD0805R110SF-1	2.00	2.20	1.20	1.50	0.70	1.20	0.20	0.10
SMD0805R110SF12v-1	2.00	2.20	1.20	1.50	0.70	1.20	0.20	0.10
SMD0805R125SF-1	2.00	2.20	1.20	1.50	1.00	1.50	0.20	0.10
SMD0805R150SF-1	2.00	2.20	1.20	1.50	1.00	1.50	0.20	0.10

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD0805R005.010.020.035.050.SF	5,000 pcs/reel
SMD0805R075.100.110.125.SF	4,000 pcs/reel
SMD0805R150SF	3,500 pcs/reel

SMD1206 Series Performance Specification

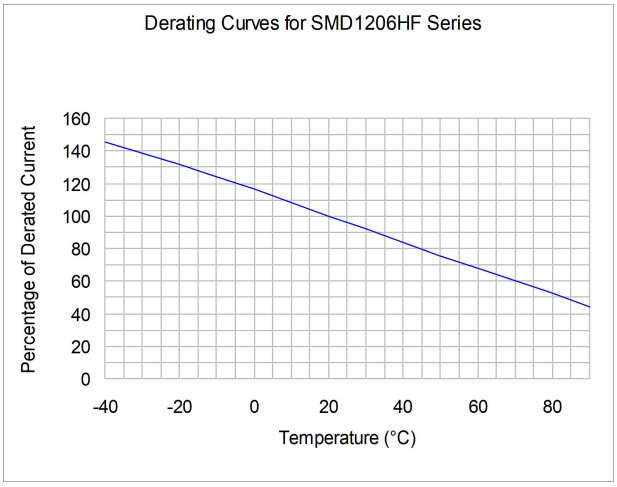
Model	Marking	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip Current (A)	Maximum Time To Trip Time (Sec)	Resistance $R_{i\,min}$ (Ω)	Resistance $R1_{max}$ (Ω)	Certification UL
SMD1206R005SF-1	RA	60.0	10	0.05	0.15	0.4	0.25	1.50	3.600	50.000	
SMD1206R005SF24v-1	RA	24.0	10	0.05	0.15	0.4	0.25	1.50	3.600	50.000	√
SMD1206R010SF-1	R1	60.0	10	0.10	0.25	0.4	0.50	1.00	1.600	15.000	
SMD1206R010SF24v-1	R1	24.0	10	0.10	0.25	0.4	0.50	1.00	1.600	15.000	√
SMD1206R012SF-1	R1	60.0	10	0.12	0.29	0.4	0.50	1.00	1.600	15.000	
SMD1206R012SF24v-1	R1	24.0	10	0.12	0.29	0.4	0.50	1.00	1.600	13.000	√
SMD1206R016SF33v-1	R2	33.0	10	0.16	0.37	0.4	1.00	0.30	1.000	6.000	
SMD1206R016SF24v-1	R2	24.0	10	0.16	0.37	0.4	1.00	0.30	1.000	6.000	√
SMD1206R016SF-1	R2	16.0	10	0.16	0.37	0.4	1.00	0.30	1.000	6.000	√
SMD1206R020SF-1	R2	24.0	10	0.20	0.46	0.6	8.00	0.08	0.350	2.700	√
SMD1206R020SF30V-1	R2	30.0	10	0.20	0.46	0.6	8.00	0.08	0.350	2.700	
SMD1206R020SF48V-1	R2	48.0	10	0.20	0.46	0.6	8.00	0.08	0.350	2.700	
SMD1206R025SF-1	R2	16.0	10	0.25	0.50	0.6	8.00	0.08	0.350	2.500	√
SMD1206R025SF24V-1	R2	24.0	10	0.25	0.50	0.6	8.00	0.08	0.350	2.500	√
SMD1206R025SF30V-1	R2	30.0	10	0.25	0.50	0.6	8.00	0.08	0.350	2.500	
SMD1206R025SF48V-1	R2	48.0	10	0.25	0.50	0.6	8.00	0.08	0.350	2.500	
SMD1206R035SF-1	R3	6.0	35	0.35	0.75	0.6	8.00	0.10	0.250	1.300	√
SMD1206R035SF16V-1	R3	16	35	0.35	0.75	0.6	8.00	0.10	0.250	1.300	
SMD1206R035SF30V-1	R3	30.0	35	0.35	0.75	0.6	8.00	0.10	0.250	1.300	
SMD1206R050SF-1	R5	6.0	35	0.50	1.00	0.6	8.00	0.10	0.150	0.700	√
SMD1206R050SF13.2V-1	R5	13.2	35	0.50	1.00	0.6	8.00	0.10	0.150	0.700	
SMD1206R050SF16V-1	R5	16.0	35	0.50	1.00	0.6	8.00	0.10	0.150	0.700	
SMD1206R050SF30V-1	R5	30.0	35	0.50	1.00	0.6	8.00	0.10	0.150	0.700	
SMD1206R075SF-1	R7	6.0	35	0.75	1.50	0.6	8.00	0.20	0.090	0.500	√
SMD1206R075SF16V-1	R7	16.0	35	0.75	1.50	0.6	8.00	0.20	0.090	0.500	
SMD1206R075SF30V-1	R7	30.0	35	0.75	1.50	0.6	8.00	0.20	0.090	0.500	
SMD1206R100SF-1	R0	6.0	35	1.00	1.80	0.6	8.00	0.30	0.050	0.270	√
SMD1206R100SF16V-1	R0	16.0	35	1.00	1.80	0.6	8.00	0.30	0.050	0.270	
SMD1206R100SF24V-1	R0	24.0	35	1.00	1.80	0.6	8.00	0.30	0.050	0.270	
SMD1206R110SF-1	R0	6.0	35	1.10	2.20	0.6	8.00	0.30	0.040	0.250	√
SMD1206R110SF16V-1	R0	16.0	35	1.10	2.20	0.6	8.00	0.30	0.040	0.250	
SMD1206R110SF24V-1	R0	24.0	35	1.10	2.20	0.6	8.00	0.30	0.040	0.250	
SMD1206R150SF-1	RX	6.0	35	1.50	3.00	0.8	8.00	0.30	0.025	0.130	√
SMD1206R150SF13.2V-1	RX	13.2	35	1.50	3.00	0.8	8.00	0.30	0.025	0.130	
SMD1206R200SF-1	RY	6.0	35	2.00	3.50	0.8	8.00	1.50	0.015	0.080	√
SMD1206R200SF12V-1	RY	12.0	35	2.00	3.50	0.8	8.00	1.50	0.015	0.080	
SMD1206R260SF-1	RZ	6.0	35	2.60	5.20	0.8	8.00	2.00	0.010	0.060	
SMD1206R300SF-1	RU	6.0	35	3.00	6.00	1.0	8.00	4.00	0.010	0.050	
SMD1206R350SF-1	R-	6.0	35	3.50	7.00	1.2	10.0	5.00	0.005	0.040	

Thermal Derading Chart

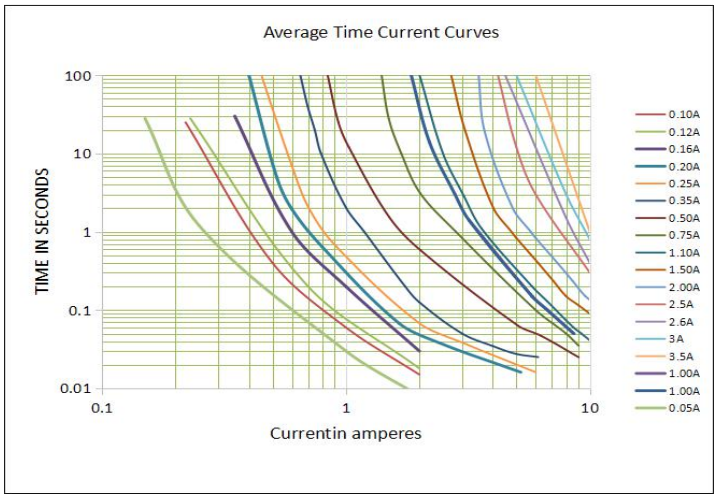
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD1206R005SF-1	0.074	0.066	0.058	0.05	0.0425	0.0375	0.035	0.03	0.0275
SMD1206R010SF-1	0.148	0.132	0.116	0.10	0.085	0.075	0.07	0.06	0.055
SMD1206R012SF-1	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.07	0.07
SMD1206R016SF-1	0.24	0.21	0.18	0.16	0.14	0.13	0.12	0.11	0.10
SMD1206R020SF-1	0.30	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.11
SMD1206R025SF-1	0.37	0.33	0.29	0.25	0.22	0.20	0.17	0.15	0.12
SMD1206R035SF-1	0.50	0.45	0.40	0.35	0.30	0.27	0.24	0.21	0.15
SMD1206R050SF-1	0.71	0.64	0.57	0.50	0.42	0.39	0.35	0.31	0.25
SMD1206R075SF-1	1.14	1.01	0.88	0.75	0.65	0.59	0.54	0.49	0.41
SMD1206R100SF-1	1.45	1.31	1.15	1.00	0.84	0.77	0.69	0.61	0.48
SMD1206R110SF-1	1.60	1.45	1.30	1.10	0.95	0.80	0.72	0.66	0.55
SMD1206R150SF-1	2.18	1.94	1.72	1.50	1.28	1.17	1.06	0.96	0.77
SMD1206R200SF-1	2.88	2.63	2.34	2.00	1.74	1.58	1.42	1.17	0.93
SMD1206R260SF-1	3.43	3.22	2.93	2.60	2.23	2.03	1.87	1.57	1.35
SMD1206R300SF-1	4.05	3.66	3.36	3.00	2.50	2.28	2.00	1.62	1.35
SMD1206R350SF-1	4.65	4.23	3.92	3.50	2.92	2.68	2.35	1.91	1.42

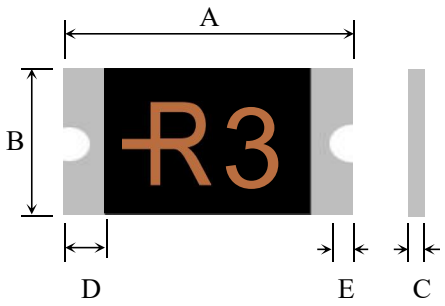
Thermal Derating Curve



Average Time-Current Curve



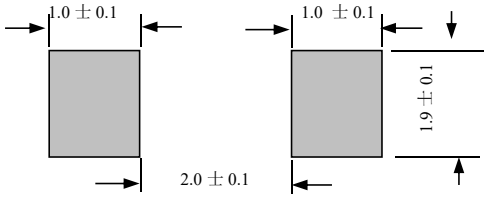
Physical Dimensions(mm.)



Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD1206R005SF24v-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R005SF-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R010SF24v-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R010SF-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R012SF24v-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R012SF-1	3.00	3.60	1.50	1.90	0.60	1.20	0.15	0.10
SMD1206R016SF-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R016SF24v-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R016SF33v-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R020SF-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R020SF30V-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R020SF48V-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R025SF-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R025SF24V-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R025SF30V-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R025SF48V-1	3.00	3.60	1.50	1.90	0.40	1.00	0.15	0.10
SMD1206R035SF-1	3.00	3.60	1.50	1.90	0.35	0.8	0.15	0.10
SMD1206R035SF16V-1	3.00	3.60	1.50	1.90	0.35	0.8	0.15	0.10
SMD1206R035SF30V-1	3.00	3.60	1.50	1.90	0.40	0.9	0.15	0.10
SMD1206R050SF-1	3.00	3.60	1.50	1.90	0.35	0.8	0.15	0.10
SMD1206R050SF13.2V-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R050SF16V-1	3.00	3.60	1.50	1.90	0.35	0.8	0.15	0.10
SMD1206R050SF30V-1	3.00	3.60	1.50	1.90	0.50	1.00	0.15	0.10
SMD1206R075SF-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R075SF16V-1	3.00	3.60	1.50	1.90	0.50	1.00	0.15	0.10
SMD1206R075SF30V-1	3.00	3.60	1.50	1.90	0.5	1.00	0.15	0.10
SMD1206R100SF-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R100SF16V-1	3.00	3.60	1.50	1.90	0.50	1.00	0.15	0.10
SMD1206R100SF24V-1	3.00	3.60	1.50	1.90	0.50	1.00	0.15	0.10
SMD1206R110SF-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R110SF16v-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R110SF24v-1	3.00	3.60	1.50	1.90	0.35	0.80	0.15	0.10
SMD1206R150SF-1	3.00	3.60	1.50	1.90	0.50	1.00	0.15	0.10

SMD1206R150SF13.2V-1	3.00	3.60	1.50	1.90	1.00	1.60	0.15	0.10
SMD1206R200SF-1	3.00	3.60	1.50	1.90	0.7	1.30	0.15	0.10
SMD1206R200SF12V-1	3.00	3.60	1.50	1.90	1.00	1.60	0.15	0.10
SMD1206R260SF-1	3.00	3.60	1.50	1.90	1.00	1.60	0.15	0.10
SMD1206R300SF-1	3.00	3.60	1.50	1.90	1.00	1.60	0.15	0.10
SMD1206R350SF-1	3.00	3.60	1.50	1.90	1.00	1.60	0.15	0.10

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD1206R005.010.012.150.200.260.300SF	3500 pcs/reel
SMD1206R020.025.035.050.075.100.110SF	4500 pcs/reel

Tape & reel packaging per EIA481-1

SMD1210 Series Performance Specification

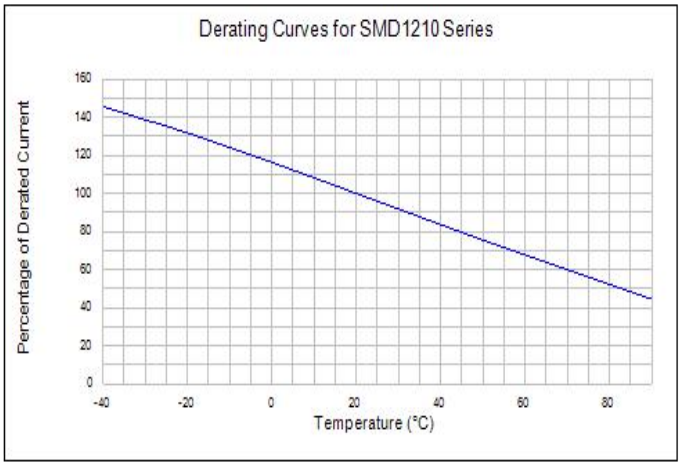
Model	Marking	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance		Certification
							Current (A)	Time (Sec)	$R_{i\,min}$ (Ω)	$R1_{max}$ (Ω)	UL
SMD1210R005SF13.2V-1	RA	13.2	30	0.05	0.15	0.6	0.25	1.50	2.800	50.000	√
SMD1210R010SF-1	R1	30.0	30	0.10	0.30	0.6	0.50	0.60	0.800	15.000	
SMD1210R010SF13.2V-1	R1	13.2	30	0.10	0.30	0.6	0.50	0.60	1.600	15.000	√
SMD1210R020SF-1	R2	30.0	30	0.20	0.40	0.6	8.0	0.02	0.400	5.000	
SMD1210R020SF13.2V-1	R2	13.2	30	0.20	0.40	0.6	8.0	0.02	0.400	5.000	√
SMD1210R035SF-1	R3	6.0	30	0.35	0.75	0.6	8.0	0.20	0.200	1.300	√
SMD1210R035SF-1	R3	13.2	30	0.35	0.75	0.6	8.0	0.20	0.200	1.300	√
SMD1210R035SF16v-1	R3	16.0	30	0.35	0.75	0.6	8.0	0.20	0.200	1.300	
SMD1210R050SF-1	R5	13.2	30	0.50	1.00	0.6	8.0	0.10	0.180	0.900	√
SMD1210R050SF24v-1	R5	24.0	30	0.50	1.00	0.6	8.0	0.10	0.180	0.900	
SMD1210R075SF-1	R7	6.0	30	0.75	1.50	0.6	8.0	0.10	0.070	0.400	√
SMD1210R075SF16v-1	R7	16.0	30	0.75	1.50	0.6	8.0	0.10	0.070	0.400	
SMD1210R110SF-1	R0	6.0	35	1.10	2.20	0.6	8.0	0.30	0.050	0.210	√
SMD1210R150SF-1	RX	6.0	35	1.50	3.00	0.6	8.0	0.50	0.030	0.110	√
SMD1210R150SF12v-1	RX	12.0	35	1.50	3.00	0.6	8.0	0.50	0.030	0.110	
SMD1210R175SF-1	RY	6.0	35	1.75	3.50	0.8	8.0	0.60	0.020	0.080	√
SMD1210R200SF-1	RZ	6.0	35	2.00	4.00	0.8	8.0	1.00	0.015	0.070	√
SMD1210R260SF-1	R—	6.0	35	2.60	5.20	0.8	8.0	2.00	0.010	0.060	

Thermal Derading Chart

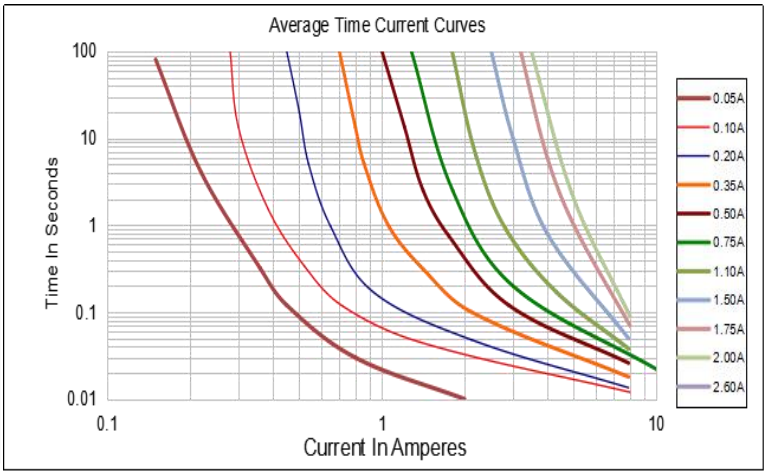
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD1210R005SF-1	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02
SMD1210R010SF-1	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.03
SMD1210R020SF-1	0.29	0.26	0.22	0.20	0.16	0.14	0.13	0.11	0.08
SMD1210R035SF-1	0.47	0.45	0.40	0.35	0.33	0.28	0.24	0.21	0.18
SMD1210R050SF-1	0.76	0.67	0.58	0.50	0.43	0.40	0.36	0.32	0.28
SMD1210R075SF-1	1.00	0.97	0.86	0.75	0.64	0.59	0.54	0.48	0.40
SMD1210R110SF-1	1.69	1.48	1.29	1.10	0.88	0.76	0.65	0.57	0.43
SMD1210R150SF-1	2.13	1.92	1.71	1.50	1.26	1.14	1.01	0.89	0.71
SMD1210R175SF-1	2.54	2.30	2.02	1.75	1.47	1.33	1.18	1.05	0.86
SMD1210R200SF-1	2.90	2.63	2.31	2.00	1.68	1.52	1.35	1.20	0.98
SMD1210R260SF-1	3.43	3.22	2.93	2.60	2.23	2.03	1.87	1.57	1.35

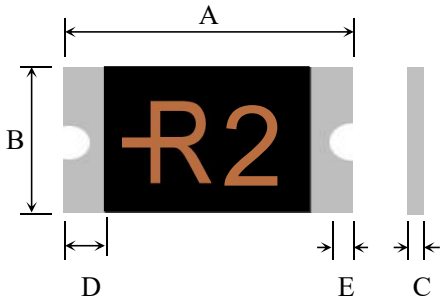
Thermal Derating Curve



Average Time-Current Curve



Physical Dimensions(mm.)



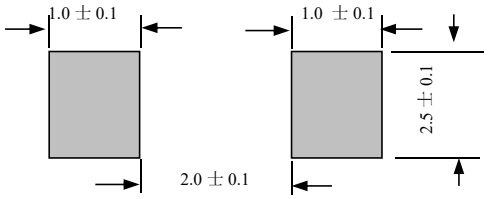
Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD1210R005SF-1	3.00	3.50	2.35	2.80	0.60	1.20	0.30	0.10
SMD1210R005SF13.2V-1	3.00	3.50	2.35	2.80	0.60	1.20	0.30	0.10
SMD1210R010SF13.2V-1	3.00	3.50	2.35	2.80	0.60	1.20	0.30	0.10
SMD1210R020SF-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R020SF13.2V-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R035SF-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R035SF13.2V-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R035SF16V-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R050SF-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R050SF24V-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R075SF-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R075SF16V-1	3.00	3.50	2.35	2.80	0.50	1.10	0.30	0.10
SMD1210R110SF-1	3.00	3.50	2.35	2.8	0.50	1.10	0.30	0.10
SMD1210R150SF-1	3.00	3.50	2.35	2.80	0.50	1.20	0.30	0.10
SMD1210R150SF12V-1	3.00	3.50	2.35	2.80	0.50	1.20	0.30	0.10
SMD1210R175SF-1	3.00	3.50	2.35	2.80	0.80	1.40	0.30	0.10
SMD1210R200SF-1	3.00	3.50	2.35	2.80	0.80	1.40	0.30	0.10
SMD1210R260SF-1	3.00	3.50	2.35	2.80	1.00	1.60	0.30	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.

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD1210	4000 pcs/reel

SMD1812 Series Performance Specification

Model	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance		认证
						Current (A)	Time (Sec)	$R_{i\ min}$ (Ω)	$R1_{max}$ (Ω)	UL
SMD1812R010SF33V-1	33.0	30	0.10	0.30	0.8	0.5	1.50	0.750	15.000	√
SMD1812R010SF-1	30.0	30	0.10	0.30	0.8	0.5	1.50	0.750	15.000	√
SMD1812R010SF60V-1	60.0	30	0.10	0.30	0.8	0.5	1.50	0.750	15.000	
SMD1812R014SF33V-1	33.0	30	0.14	0.34	0.8	1.5	0.15	0.650	6.000	√
SMD1812R014SF-1	60.0	30	0.14	0.34	0.8	1.5	0.15	0.650	6.000	
SMD1812R020SF-1	30.0	30	0.20	0.40	0.8	8.0	0.02	0.350	5.000	√
SMD1812R020SF33V-1	33.0	30	0.20	0.40	0.8	8.0	0.02	0.350	5.000	√
SMD1812R020SF60V-1	60.0	30	0.20	0.40	0.8	8.0	0.02	0.350	5.000	
SMD1812R030SF-1	30.0	30	0.30	0.60	0.8	8.0	0.10	0.250	3.000	√
SMD1812R030SF33V-1	33.0	30	0.30	0.60	0.8	8.0	0.10	0.250	3.000	√
SMD1812R030SF60V-1	60.0	30	0.30	0.60	0.8	8.0	0.10	0.250	3.000	
SMD1812R050SF-1	15.0	30	0.50	1.00	0.8	8.0	0.15	0.150	1.000	√
SMD1812R050SF33V-1	33.0	30	0.50	1.00	0.8	8.0	0.15	0.150	1.000	√
SMD1812R050SF60V-1	60.0	30	0.50	1.00	0.8	8.0	0.15	0.150	1.400	
SMD1812R075SF-1	13.2	30	0.75	1.50	0.8	8.0	0.20	0.090	0.450	√
SMD1812R075SF24V-1	24.0	30	0.75	1.50	0.8	8.0	0.20	0.090	0.450	
SMD1812R075SF33V-1	33.0	30	0.75	1.50	0.8	8.0	0.20	0.090	0.450	
SMD1812R110SF-1	8.0	35	1.10	2.20	0.8	8.0	0.30	0.045	0.250	√
SMD1812R110SF16V-1	16.0	35	1.10	2.20	0.8	8.0	0.30	0.050	0.250	
SMD1812R110SF24V-1	24.0	35	1.10	2.20	0.8	8.0	0.30	0.050	0.250	
SMD1812R110SF33V-1	33.0	35	1.10	2.20	0.8	8.0	0.30	0.050	0.250	
SMD1812R125SF8V-1	8.0	35	1.25	2.50	0.8	8.0	0.40	0.050	0.140	√
SMD1812R125SF-1	16.0	35	1.25	2.50	0.8	8.0	0.40	0.050	0.140	
SMD1812R150SF-1	8.0	35	1.50	3.00	0.8	8.0	0.50	0.040	0.160	√
SMD1812R150SF16V-1	16.0	35	1.50	3.00	0.8	8.0	0.50	0.040	0.160	
SMD1812R150SF24V-1	24.0	35	1.50	3.00	0.8	8.0	0.50	0.040	0.160	
SMD1812R150SF33V-1	33.0	35	1.50	3.00	0.8	8.0	0.50	0.040	0.160	
SMD1812R160SF-1	8.0	35	1.60	2.80	0.8	8.0	1.00	0.030	0.130	√
SMD1812R200SF-1	8.0	35	2.00	4.00	0.8	8.0	2.00	0.020	0.100	√
SMD1812R200SF16V-1	16.0	35	2.00	4.00	0.8	8.0	2.00	0.020	0.100	
SMD1812R200SF24V-1	24.0	35	2.00	4.00	0.8	8.0	2.00	0.020	0.100	
SMD1812R260SF-1	8.0	35	2.60	5.00	0.8	8.0	2.50	0.010	0.050	√
SMD1812R260SF16V-1	16.0	35	2.60	5.00	0.8	8.0	2.50	0.010	0.050	
SMD1812R300SF-1	8.0	35	3.00	5.00	0.8	8.0	4.00	0.010	0.040	
SMD1812R300SF16V-1	16.0	35	3.00	5.00	0.8	8.0	4.00	0.010	0.040	
SMD1812R350SF-1	6.0	35	3.50	6.00	2.0	10.0	4.00	0.008	0.030	
SMD1812R350SF16V-1	16.0	35	3.50	6.00	2.0	10.0	4.00	0.008	0.030	

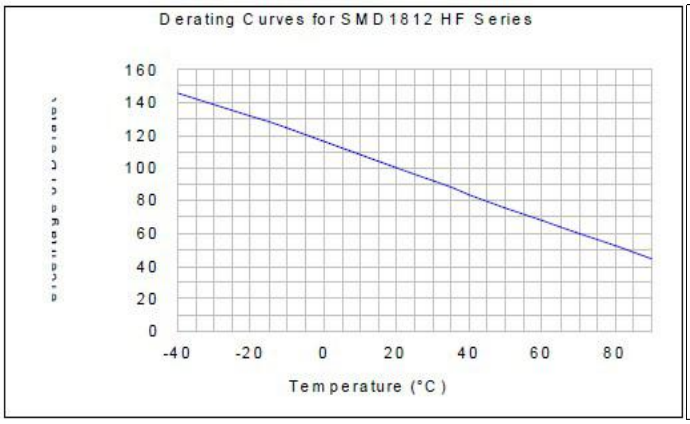
SMD1812R400SF-1	6.0	35	4.00	7.00	2.0	10.0	4.00	0.005	0.025	
SMD1812R400SF12V-1	12.0	35	4.00	7.00	2.0	10.0	4.00	0.005	0.025	
SMD1812R400SF16V-1	16.0	35	4.00	7.00	2.0	10.0	4.00	0.005	0.025	

Thermal Derading Chart

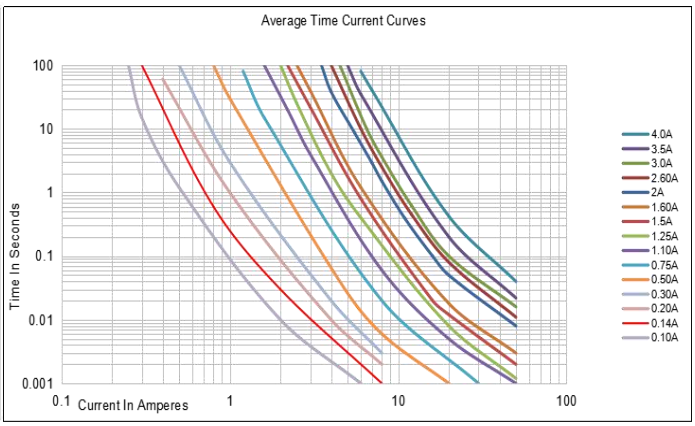
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD1812R010SF-1	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.03
SMD1812R014SF-1	0.23	0.19	0.17	0.14	0.12	0.10	0.09	0.08	0.06
SMD1812R020SF-1	0.29	0.26	0.23	0.20	0.17	0.15	0.14	0.12	0.10
SMD1812R030SF-1	0.44	0.39	0.35	0.30	0.26	0.23	0.21	0.18	0.15
SMD1812R050SF-1	0.59	0.57	0.55	0.50	0.45	0.43	0.35	0.30	0.23
SMD182R075SF-1	1.10	0.99	0.87	0.75	0.63	0.57	0.49	0.45	0.35
SMD1812R110SF-1	1.60	1.45	1.28	1.10	0.92	0.83	0.71	0.66	0.52
SMD1812R125SF-1	2.00	1.75	1.52	1.25	1.00	0.95	0.90	0.75	0.53
SMD1812R150SF-1	2.10	1.96	1.77	1.50	1.23	1.09	0.95	0.82	0.61
SMD1812R160SF-1	2.30	2.05	1.88	1.60	1.26	1.12	0.98	0.84	0.63
SMD1812R200SF-1	2.88	2.61	2.25	2.00	1.80	1.66	1.45	1.09	0.80
SMD1812R260SF-1	3.90	3.42	2.96	2.60	2.33	2.07	1.94	1.35	1.00
SMD1812R300SF-1	4.15	3.76	3.46	3.00	2.55	2.28	2.01	1.61	1.33
SMD1812R350SF-1	4.84	4.39	4.04	3.50	2.98	2.66	2.35	1.88	1.55
SMD1812R400SF-1	5.80	5.20	4.60	4.00	3.35	3.12	2.75	2.45	2.10

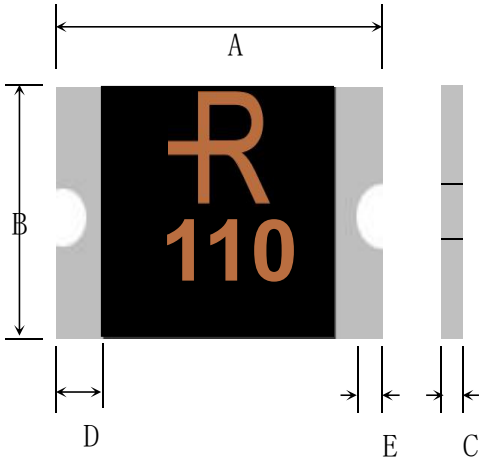
Thermal Derating Curve



Average Time-Current Curve



Physical Dimensions(mm.)



Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD1812R010SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R010SF33V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R010SF60V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R014SF33V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R014SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R020SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R020SF33V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R020SF60V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R030SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R030SF33V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R030SF60V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R050SF-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R050SF33V-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R050SF60V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R075SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R075SF24V-1	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
SMD1812R075SF33V-1	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
SMD1812R110SF-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R110SF16V-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R110SF24V-1	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
SMD1812R110SF33V-1	4.37	4.73	3.07	3.41	0.60	1.30	0.30	0.25
SMD1812R125SF-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R125SF8V-1	4.37	4.73	3.07	3.41	0.40	1.00	0.30	0.25
SMD1812R150SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R150SF16V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25

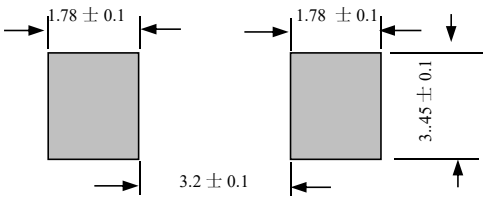
SMD1812R150SF24V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R150SF33V-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R160SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R200SF-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R200SF16V-1	4.37	4.73	3.07	3.41	0.50	1.10	0.30	0.25
SMD1812R200SF24V-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R260SF-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R260SF16V-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R300SF-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R300SF16V-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R350SF-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R350SF16V-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R400SF-1	4.37	4.73	3.07	3.41	0.80	1.50	0.30	0.25
SMD1812R400SF12V-1	4.37	4.73	3.07	3.41	1.00	1.80	0.30	0.25
SMD1812R400SF16V-1	4.37	4.73	3.07	3.41	1.00	1.80	0.30	0.25

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.

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD1812 Series	1,500 pcs/reel

Tape & reel packaging per EIA481-1

SMD1812 Series Performance Specification

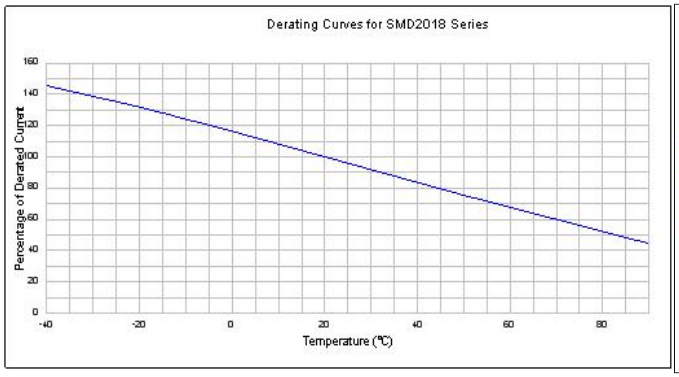
Model	V_{max} (V dc)	I_{max} (A)	I_{hold} @25°C (A)	I_{trip} @25°C (A)	P_d Typ. (W)	Maximum Time To Trip		Resistance	
						Current (A)	Time (Sec)	$R_{i\ min}$ (Ω)	$R1_{max}$ (Ω)
SMD2018R030SF-1	60	10	0.30	0.60	0.9	1.5	3.00	0.500	2.300
SMD2018R050SF-1	60	10	0.55	1.20	1.0	2.5	3.00	0.200	1.000
SMD2018R075SF-1	60	10	0.75	1.50	1.1	8.0	0.30	0.110	0.630
SMD2018R100SF-1	15	35	1.10	2.20	1.1	8.0	0.40	0.060	0.360
SMD2018R100SF33V-1	33	35	1.10	2.20	1.1	8.0	0.40	0.060	0.360
SMD2018R150SF-1	15	35	1.50	3.00	1.1	8.0	0.80	0.050	0.170
SMD2018R200SF-1	10	35	2.00	4.00	1.1	8.0	2.40	0.030	0.100

Thermal Derading Chart

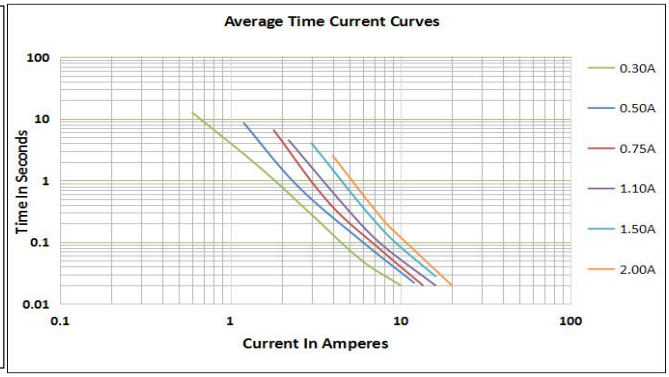
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD2018R030SF-1	0.48	0.42	0.35	0.30	0.24	0.21	0.17	0.15	0.10
SMD2018R050SF-1	0.87	0.77	0.67	0.55	0.46	0.41	0.36	0.31	0.23
SMD2018R075SF-1	1.19	1.05	0.91	0.75	0.61	0.54	0.47	0.41	0.32
SMD2018R100SF-1	1.71	1.52	1.32	1.10	0.94	0.84	0.74	0.64	0.50
SMD2018R150SF-1	2.38	2.10	1.82	1.50	1.27	1.13	0.99	0.85	0.64
SMD2018R200SF-1	2.95	2.65	2.35	2.00	1.74	1.59	1.44	1.29	1.06

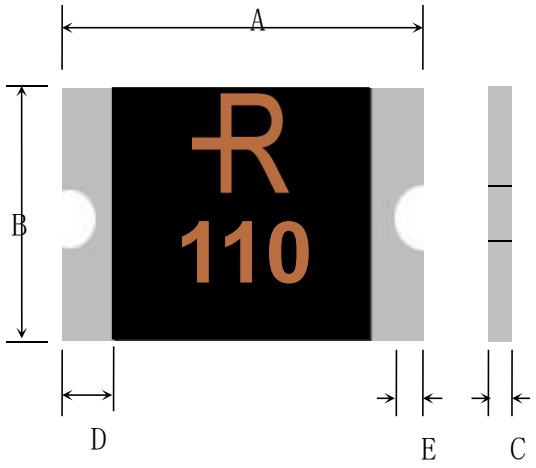
Thermal Derating Curve



Average Time-Current Curve



Physical Dimensions(mm.)



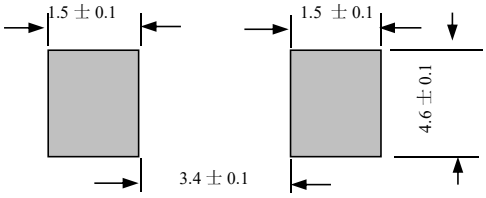
Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD2018R030SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R050SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R075SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R100SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R100SF33V-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R150SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25
SMD2018R200SF-1	4.72	5.44	4.22	4.93	0.50	1.20	0.30	0.25

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.

Recommended Pad Layout (mm.)



Packaging Quantity

Part Number	Quantity
SMD2018R030.050SF	1500 pcs/reel
The others	2500 pcs/reel

Tape & reel packaging per EIA481-1

SMD2920 Series Performance Specification

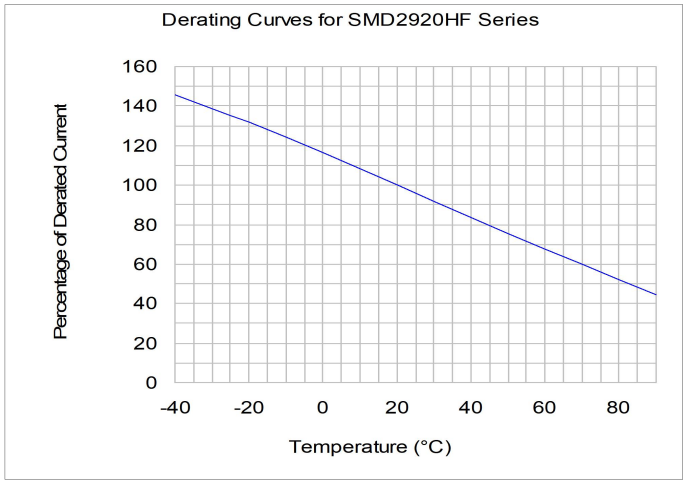
Model	V_{max}	I_{max}	I_{hold}	I_{trip}	P_d	Maximum Time To Trip		Resistance	
			@25°C	@25°C	Typ.	Current	Time	$R_{i\ min}$	$R1_{max}$
	(V dc)	(A)	(A)	(A)	(W)	(A)	(Sec)	(Ω)	(Ω)
SMD2920R030SF-1	60	10	0.30	0.60	1.5	1.5	3.0	0.600	4.800
SMD2920R050SF-1	60	10	0.50	1.00	1.5	2.5	4.0	0.180	1.400
SMD2920R075SF-1	33	40	0.75	1.50	1.5	8.0	0.3	0.100	1.000
SMD2920R075SF60V-1	60	40	0.75	1.50	1.5	8.0	0.3	0.100	1.000
SMD2920R100SF-1	33	40	1.10	2.20	1.5	8.0	0.5	0.065	0.410
SMD2920R100SF60V-1	60	40	1.10	2.20	1.5	8.0	0.5	0.065	0.410
SMD2920R125SF-1	33	40	1.25	2.50	1.5	8.0	2.0	0.050	0.250
SMD2920R150SF-1	33	40	1.50	3.00	1.5	8.0	2.0	0.035	0.230
SMD2920R185SF-1	33	40	1.85	3.70	1.5	8.0	2.5	0.030	0.150
SMD2920R200SF-1	16	40	2.00	4.00	1.5	8.0	4.5	0.020	0.120
SMD2920R200SF24V-1	24	40	2.00	4.00	1.5	8.0	4.5	0.020	0.120
SMD2920R200SF33V-1	33	40	2.00	4.00	1.5	8.0	4.5	0.020	0.120
SMD2920R250SF-1	16	40	2.50	5.00	1.5	8.0	16.0	0.020	0.085
SMD2920R250SF24V-1	24	40	2.50	5.00	1.5	8.0	16.0	0.020	0.085
SMD2920R260SF-1	6	40	2.60	5.20	1.5	8.0	10.0	0.014	0.075
SMD2920R260SF16V-1	16	40	2.60	5.20	1.5	8.0	10.0	0.014	0.075
SMD2920R300SF-1	6	40	3.00	6.00	1.5	8.0	20.0	0.012	0.048
SMD2920R300SF16v-1	16	40	3.00	6.00	1.5	8.0	20.0	0.012	0.048
SMD2920R400SF-1	6	40	4.00	8.00	1.5	20.0	4.0	0.008	0.040
SMD2920R400SF16V-1	16	40	4.00	8.00	1.5	20.0	4.0	0.008	0.040
SMD2920R500SF-1	6	40	5.00	10.00	1.5	25.0	5.0	0.005	0.031
SMD2920R500SF12V-1	12	40	5.00	10.00	1.5	25.0	5.0	0.005	0.031
SMD2920R500SF16V-1	16	40	5.00	10.00	1.5	25.0	5.0	0.005	0.031
SMD2920R600SF-1	6	40	6.00	12.00	1.5	25.0	6.0	0.004	0.020
SMD2920R600SF12v-1	12	40	6.00	12.00	1.5	25.0	6.0	0.004	0.020
SMD2920R700SF-1	6	40	7.00	14.00	1.5	25.0	6.0	0.0025	0.010
SMD2920R700SF12v-1	12	40	7.00	14.00	1.5	25.0	6.0	0.0025	0.010

Thermal Derading Chart

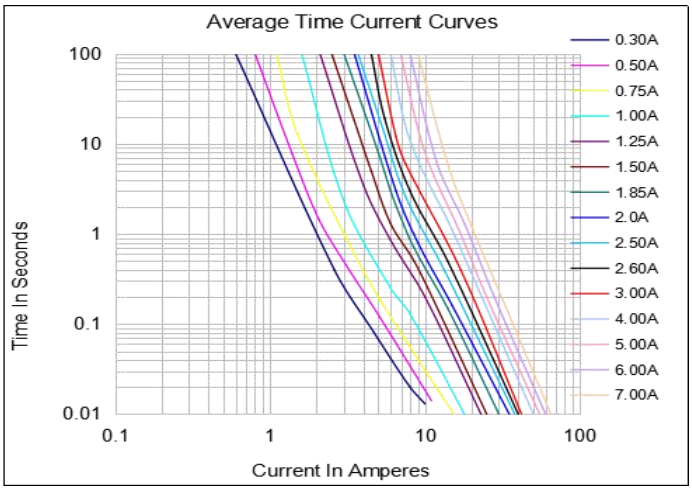
Recommended Hold Current(A) at Ambient Temperature(°C)

Model	Ambient Operation Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SMD2920R030SF-1	0.45	0.40	0.35	0.30	0.25	0.23	0.20	0.17	0.14
SMD2920R050SF-1	0.76	0.67	0.59	0.50	0.42	0.38	0.33	0.29	0.23
SMD2920R075SF-1	1.13	1.01	0.88	0.75	0.62	0.56	0.50	0.44	0.34
SMD2920R100SF-1	1.66	1.47	1.29	1.10	0.91	0.83	0.73	0.64	0.50
SMD2920R125SF-1	1.89	1.68	1.46	1.25	1.04	0.94	0.83	0.73	0.56
SMD2920R150SF-1	2.27	2.01	1.76	1.50	1.25	1.13	1.00	0.87	0.74
SMD2920R185SF-1	2.80	2.47	2.17	1.85	1.54	1.39	1.22	1.07	0.85
SMD2920R200SF-1	3.02	2.68	2.34	2.00	1.66	1.50	1.32	1.16	0.90
SMD2920R250SF-1	3.78	3.35	2.93	2.50	2.08	1.88	1.65	1.45	1.13
SMD2920R260SF-1	3.64	3.25	2.91	2.60	2.26	2.08	1.95	1.74	1.13
SMD2920R300SF-1	4.53	4.02	3.51	3.00	2.52	2.26	1.99	1.75	1.34
SMD2920R400SF-1	6.04	5.36	4.68	4.00	3.36	3.01	2.65	2.33	1.79
SMD2920R500SF-1	7.55	6.70	5.85	5.00	4.20	3.77	3.32	2.92	2.23
SMD2920R600SF-1	8.60	7.70	6.80	6.00	4.95	4.60	4.06	3.65	3.15
SMD2920R700SF-1	10.03	8.98	7.93	7.00	5.77	5.36	4.73	4.26	3.68

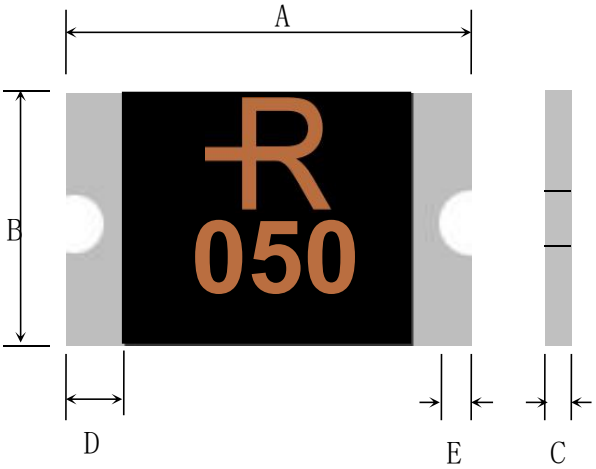
Thermal Derating Curve



Average Time-Current Curve



Physical Dimensions(mm.)



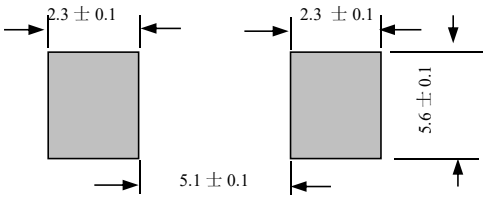
Model	A		B		C		D	E
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.
SMD2920R030SF-1	6.73	7.98	4.80	5.44	0.60	1.20	0.30	0.25
SMD2920R050SF-1	6.73	7.98	4.80	5.44	0.60	1.20	0.30	0.25
SMD2920R075SF-1	6.73	7.98	4.80	5.44	0.70	1.30	0.30	0.25
SMD2920R075SF60V-1	6.73	7.98	4.80	5.44	0.70	1.30	0.30	0.25
SMD2920R100SF-1	6.73	7.98	4.80	5.44	0.40	1.00	0.30	0.25
SMD2920R100SF60V-1	6.73	7.98	4.80	5.44	1.00	2.10	0.30	0.25
SMD2920R125SF-1	6.73	7.98	4.80	5.44	0.40	1.00	0.30	0.25
SMD2920R150SF-1	6.73	7.98	4.80	5.44	0.50	1.30	0.30	0.25
SMD2920R185SF-1	6.73	7.98	4.80	5.44	0.70	1.40	0.30	0.25
SMD2920R200SF-1	6.73	7.98	4.80	5.44	0.70	1.40	0.30	0.25
SMD2920R200SF24V-1	6.73	7.98	4.80	5.44	0.70	1.40	0.30	0.25
SMD2920R200SF33V-1	6.73	7.98	4.80	5.44	0.70	1.40	0.30	0.25
SMD2920R250SF-1	6.73	7.98	4.80	5.44	0.7	1.40	0.30	0.25
SMD2920R250SF24V-1	6.73	7.98	4.80	5.44	0.7	1.40	0.30	0.25
SMD2920R260SF-1	6.73	7.98	4.80	5.44	0.7	1.40	0.30	0.25
SMD2920R260SF16V-1	6.73	7.98	4.80	5.44	0.70	1.40	0.30	0.25
SMD2920R300SF-1	6.73	7.98	4.80	5.44	0.60	1.20	0.30	0.25
SMD2920R300SF16V-1	6.73	7.98	4.80	5.44	0.60	1.20	0.30	0.25
SMD2920R400SF-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R400SF16V-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R500SF-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R500SF12V-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R500SF16V-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R600SF-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R600SF12V-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R700SF-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25
SMD2920R700SF12V-1	6.73	7.98	4.80	5.44	1.00	1.60	0.30	0.25

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.

Recommended Pad Layout (mm.)

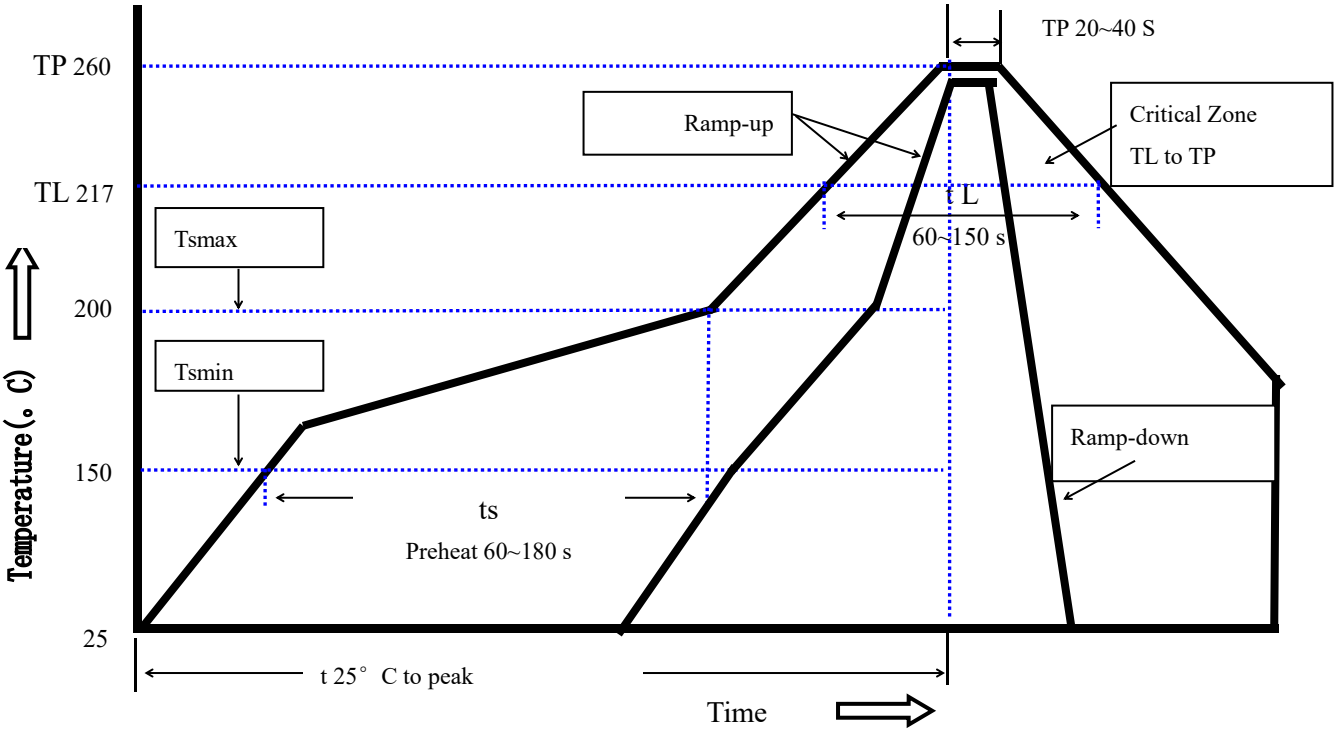


Packaging Quantity

Part Number	Quantity
SMD2920 Series	1500 pcs/reel

Tape & reel packaging per EIA481-1

Soldering Parameters



Profile Feature	Pb-Free Assembly
Average Ramp-Up Rate(Ts max to T p)	3℃/second mac.
Preheat -Temperature Min(Ts min) -Temperature Max(Ts max) -Time(Ts min to Ts max)	 150℃ 200℃ 60~180 seconds
Time maintained above: -Temperature(TL) -Time(tL)	 217℃ 60~150 seconds
Peak Temperature(Tp)	260℃
Ramp-Down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max
Storage Condition	0℃~35℃,30%~60%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.