

FEATURES

- | I(hold): 0.5~9.0A
- | RoHS compliant, Lead-Free
- | Fast time-to-trip
- | Bulk packaging, or tape and reel available
- | Low resistance
- | Radial leaded device



APPLICATIONS

- | PC motherboard - plug and play protection
- | Industrial controls
- | Automotive electronics
- | Medical products
- | Power ports

ENVIRONMENTAL SPECIFICATIONS

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hrs	±8% typical
Humidity aging	+85°C, 85%R.H., 168 hours	±8% typical
Thermal shock	+125°C to -55°C, 10 times	±12% 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		

PERFORMANCE SPECIFICATION

Type Number	I_{hold}	I_{trip}	V_{max}	I_{max}	$P_{d\ typ}$	Max. Time to Trip		Ri_{min}	Ri_{max}
	A	A	V_{DC}	A	W	Current A	Tmax S	mΩ	mΩ
SK30-050	0.5	1.0	30	40	0.5	2.5	5	250	600
SK30-075	0.75	1.5	30	40	0.6	3.75	5	200	370
SK30-090	0.90	1.80	30	40	0.7	4.50	8	100	220
SK30-110	1.10	2.20	30	40	0.7	5.50	8	70	200
SK30-120	1.20	2.40	30	40	0.8	6.00	8	80	180
SK30-135	1.35	2.70	30	40	0.8	6.75	8	70	160
SK30-160	1.60	3.20	30	40	0.9	8.00	8	60	140
SK30-185	1.85	3.70	30	40	1.0	9.25	8	50	120
SK30-200	2.00	4.00	30	40	1.2	10.00	11	40	100
SK30-250	2.25	5.00	30	40	1.2	12.50	11	30	80
SK30-300	3.00	6.00	30	40	2.0	15.00	11	30	70
SK30-400	4.00	8.00	30	40	2.5	20.00	12.7	10	60
SK30-500	5.00	10.00	30	40	3.0	25.00	14.5	10	50
SK30-600	6.00	12.00	30	40	3.5	30.00	16.0	5	40
SK30-700	7.00	14.00	30	40	3.8	35.00	17.5	5	30
SK30-800	8.00	16.00	30	40	4.0	40.00	18.8	5	25
SK30-900	9.00	18.00	30	40	4.2	40.00	20.0	5	20

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}).

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.

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

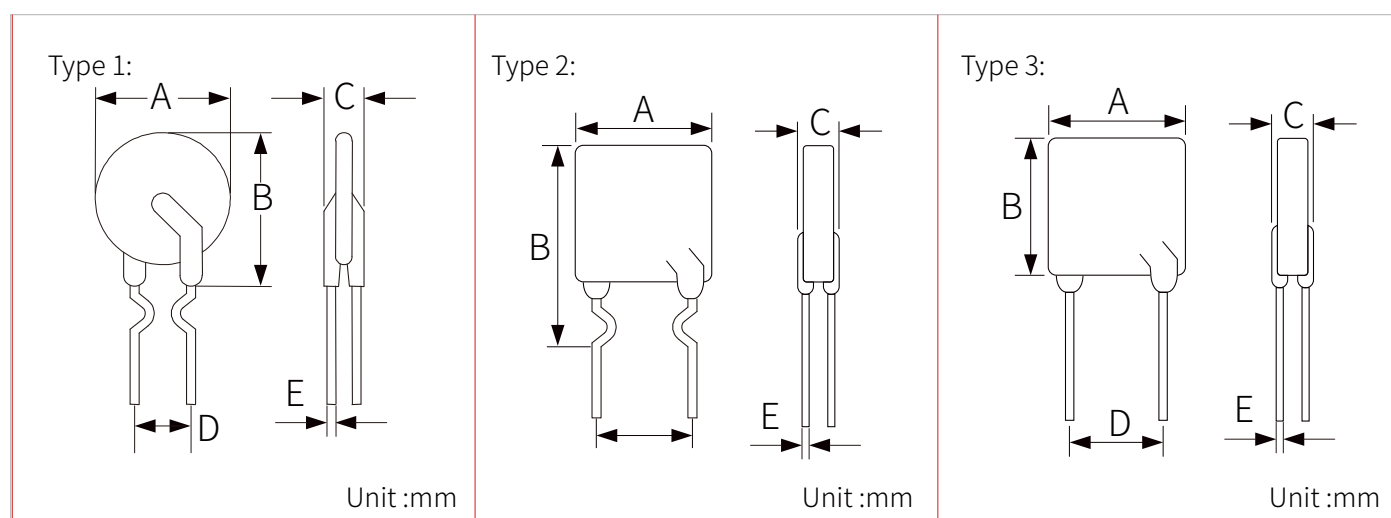
$Ri_{min/max}$ = Minimum/Maximum device resistance prior to tripping at 25°C.

$R1_{max}$ = Maximum device resistance is measured one hour post reflow.

THERMAL DERATING CHART-IH(A)

Part Number	Ambient Operation Temperature								
	-40 °C	-20 °C	0 °C	25 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SK30-050	0.72	0.65	0.57	0.5	0.45	0.41	0.38	0.34	0.25
SK30-075	1.08	0.97	0.86	0.75	0.68	0.62	0.57	0.671	0.37
SK30-090	1.400	1.170	1.035	0.90	0.747	0.693	0.612	0.549	0.468
SK30-110	1.750	1.430	1.265	1.10	0.913	0.847	0.748	0.671	0.527
SK30-120	1.908	1.560	1.380	1.20	0.996	0.924	0.816	0.732	0.624
SK30-135	2.150	1.755	1.553	1.35	1.121	1.040	0.918	0.824	0.702
SK30-160	2.490	2.080	1.840	1.60	1.328	1.232	1.088	0.976	0.832
SK30-185	2.870	2.405	2.128	1.85	1.536	1.425	1.258	1.129	0.962
SK30-200	3.180	2.600	2.300	2.00	1.660	1.540	1.360	1.220	1.040
SK30-250	3.820	3.250	2.875	2.50	2.075	1.925	1.700	1.525	1.300
SK30-300	4.550	3.900	3.450	3.00	2.490	2.310	2.040	1.830	1.560
SK30-400	6.000	5.200	4.600	4.00	3.320	3.080	2.720	2.440	2.080
SK30-500	7.440	6.500	5.750	5.00	4.150	3.850	3.400	3.050	2.600
SK30-600	8.900	7.800	6.900	6.00	4.980	4.620	4.080	3.660	3.120
SK30-700	10.350	9.100	8.050	7.00	5.810	5.390	4.760	4.270	3.640
SK30-800	11.600	10.400	9.200	8.00	6.640	6.160	5.440	4.880	4.160
SK30-900	13.250	11.700	10.350	9.00	7.470	6.930	6.120	5.490	4.680

DIMENSIONS



Part Number	A(max)	B(max)	C(max)	D(typ)	E(mm)	TYPE
SK30-050	7.4	12.7	3.0	5.1	Φ0.5	TYPE 1
SK30-075	7.4	13.0	3.0	5.1	Φ0.5	TYPE 1
SK30-090	7.4	18.5	3.0	5.1	Φ0.5	TYPE 2
SK30-110	7.4	18.5	3.0	5.1	Φ0.5	TYPE 2
SK30-120	7.4	18.5	3.0	5.1	Φ0.5	TYPE 2
SK30-135	9.2	17.6	3.0	5.1	Φ0.5	TYPE 2
SK30-160	9.2	20.2	3.0	5.1	Φ0.5	TYPE 2
SK30-185	9.2	20.2	3.0	5.1	Φ0.5	TYPE 2
SK30-200	15.2	20.2	3.0	5.1	Φ0.5	TYPE 2
SK30-250	13.2	22.4	3.0	5.1	Φ0.5	TYPE 2
SK30-300	13.2	22.4	3.0	5.1	Φ0.8	TYPE 3
SK30-400	14.0	23.7	3.0	5.1	Φ0.8	TYPE 3
SK30-500	14.0	23.7	3.0	10.2	Φ0.8	TYPE 3
SK30-600	17.2	27.0	3.0	10.2	Φ0.8	TYPE 3
SK30-700	17.2	27.0	3.0	10.2	Φ0.8	TYPE 3
SK30-800	23.5	29.2	3.0	10.2	Φ0.8	TYPE 3
SK30-900	23.5	29.2	3.0	10.2	Φ0.8	TYPE 3

ENVIRONMENTAL SPECIFICATIONS

Items	Test Conditions	Accept/Reject Criteria
Resistance	In still air@25°C	$R_{min} \leq R \leq R_{max}$
Time to Trip	Specified current, V_{max} , 25°C	$T \leq \text{max. Time to trip}(T_{trip})$
Hold Current	60 min, at I_H	No trip
Trip Cycle Life	V_{max} , I_{max} , 100 cycles	No arcing or burning
Trip Endurance	V_{max} , 24 hours	No arcing or burning

PARAMETER CHARACTERISTIC CURVE

FIG.1: Thermal Derating Curve

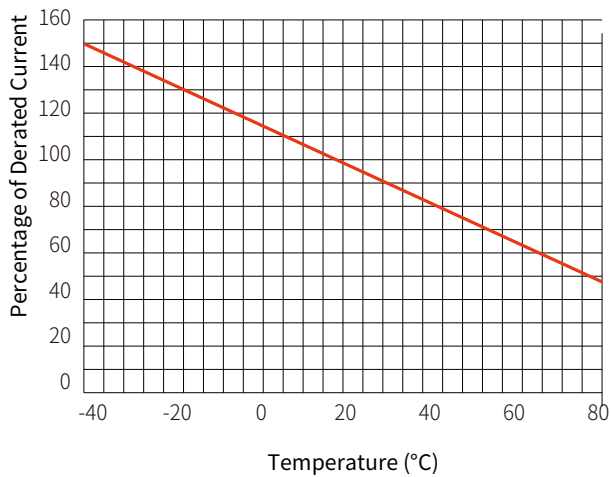
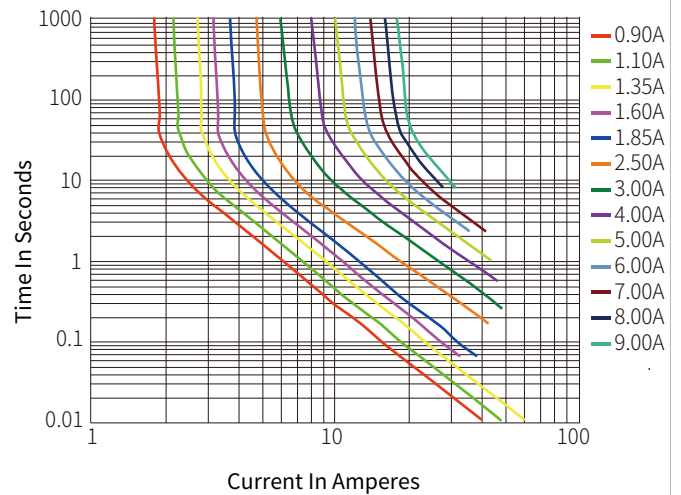
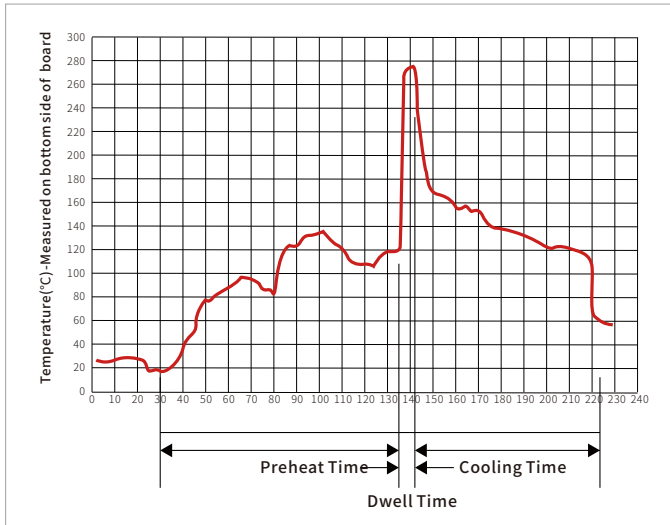


FIG.2: Average Time-Current Curve



WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

ORDERING INFORMATION

Part Number	Base Quantity	Packing Option
SK30-050~SK30-250	1000pcs	Bulk
SK30-300~SK30-500	500pcs	Bulk
SK30-600~SK30-900	200pcs	Bulk

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