

## FEATURES

- | I(hold): 20~2000mA
- | 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

## ENVIRONMENTAL SPECIFICATIONS

Test	Conditions	Resistance change
Passive aging	+85°C, 1000 hours	±8% typical
Humidity aging	+85°C, 85%R.H., 100 hours	±8% typical
Thermal shock	+125°C to -55°C, 10hours	±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		$Ri_{min}$	$Ri_{max}$
	mA	mA	$V_{DC}$	A	W	Current A	Tmax S	$\Omega$	$\Omega$
SK250-020	20	50	250	3	1.0	0.5	0.5	50	160
SK250-030	30	70	250	3	1.0	0.5	0.5	40	120
SK250-040	40	80	250	3	1.0	0.5	1.5	30	60
SK250-050	50	100	250	3	1.0	0.5	2	25	50
SK250-060	60	120	250	3	1.0	0.5	2	20	60
SK250-080	80	160	250	3	1.0	1	0.5	12	22
SK250-090	90	180	250	3	1.0	1	0.8	10	20
SK250-100	100	200	250	3	1.0	1	1	10	20
SK250-110	110	220	250	3	1.0	1	2.0	6	12
SK250-120	120	240	250	3	1.0	1	2.0	6	12
SK250-145	145	290	250	3	1.0	1	5.0	3.5	6.5
SK250-180	180	650	250	3	1.8	3	1.5	2.0	4.0
SK250-200	200	400	250	5	2.4	3	5	3	6
SK250-400	400	800	250	5	2.8	3	8	1	3
SK250-600	600	1200	250	5	3.2	3	12	0.6	2.0
SK250-800	800	1600	250	5	3.6	4	18	0.4	1.0
SK250-1000	1000	2000	250	7	3.6	5	20	0.3	0.8
SK250-1200	1200	2400	250	7	3.6	6	20	0.2	0.8
SK250-1500	1500	3000	250	7	4.8	7.5	20	0.2	0.6
SK250-2000	2000	4000	250	10	4.8	10	20	0.2	0.4

$V_{max}$  = 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.

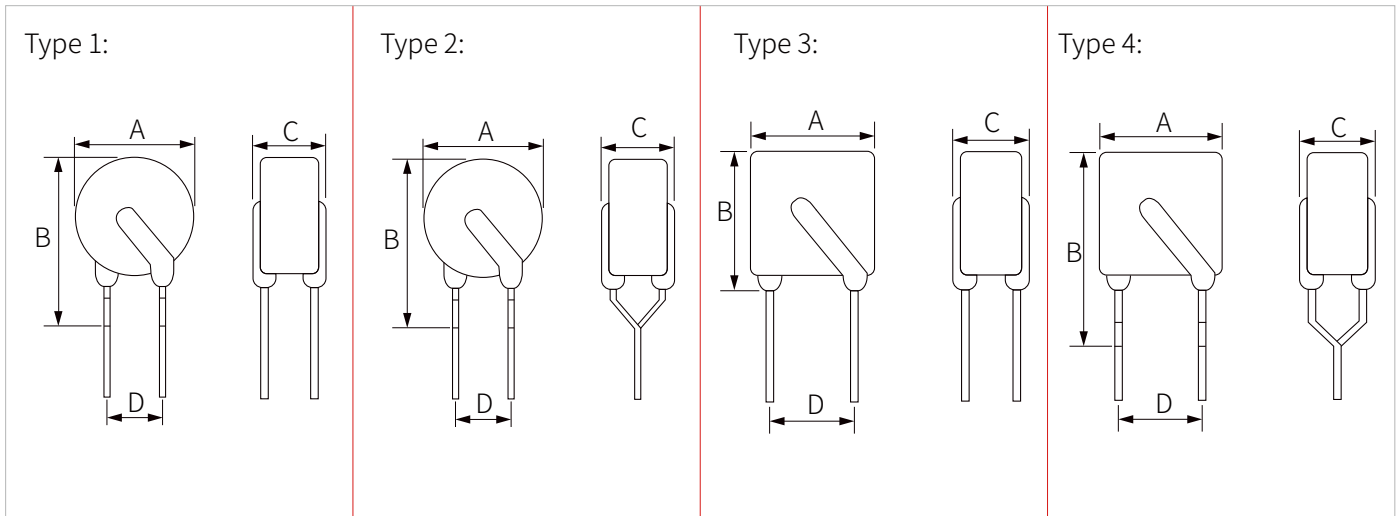
$Ri_{min/max}$  = Minimum/Maximum device resistance prior to tripping at 25°C.

$R1_{max}$  = 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	30 °C	40 °C	50 °C	60 °C	70 °C	85 °C
SK250 Series	148%	132%	117%	100%	91%	85%	77%	68%	61%	45%

# DIMENSIONS



Part Number	A(max)	B(max)	C(max)	D(typ)	E(mm)	TYPE
SK250-020	7.4	12.7	4.5	5.1	Φ0.6	TYPE 1/2
SK250-030	7.4	12.7	4.5	5.1	Φ0.6	TYPE 1/2
SK250-040	7.4	12.7	4.5	5.1	Φ0.6	TYPE 1/2
SK250-050	7.4	12.7	4.5	5.1	Φ0.6	TYPE 1/2
SK250-060	7.4	12.7	4.5	5.1	Φ0.6	TYPE 1/2
SK250-080	7.4	12.7	4.5	5.1	Φ0.6	TYPE 2
SK250-090	7.4	12.7	4.5	5.1	Φ0.6	TYPE 2
SK250-100	7.8	12.6	4.5	5.1	Φ0.6	TYPE 1
SK250-110	7.0	12.6	4.5	5.1	Φ0.6	TYPE 4
SK250-120	7.0	12.6	4.5	5.1	Φ0.6	TYPE 4
SK250-145	7.0	12.6	4.5	5.1	Φ0.6	TYPE 4
SK250-180	9.0	11.0	4.5	5.1	Φ0.6	TYPE 4
SK250-200	12.0	17.0	4.5	5.1	Φ0.6	TYPE 3
SK250-400	12.0	17.0	4.5	5.1	Φ0.6	TYPE 3
SK250-600	12.0	17.0	4.5	5.1	Φ0.6	TYPE 3
SK250-800	20.0	22.5	4.5	5.1	Φ0.8	TYPE 3
SK250-1000	20	22.5	4.5	5.1	Φ0.8	TYPE 3
SK250-1200	22	28	4.5	5.1	Φ0.8	TYPE 3
SK250-1500	25	30	4.5	5.1	Φ0.8	TYPE 3
SK250-2000	26	32	4.5	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, $V_{max}, 25^\circ\text{C}$	$T \leq \text{max. Time to trip}(T_{trip})$
Hold Current	60 min, at IH	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

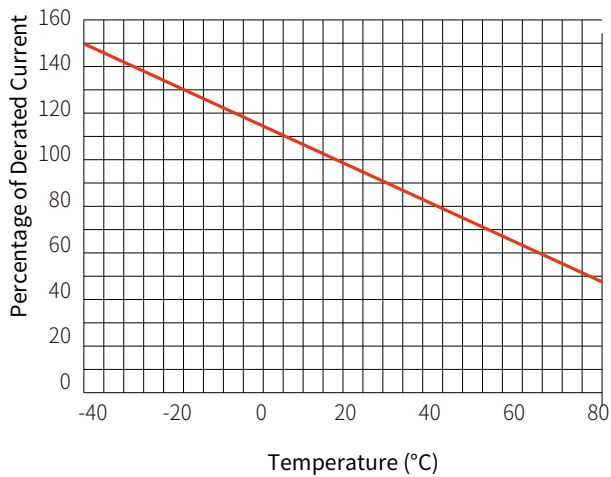
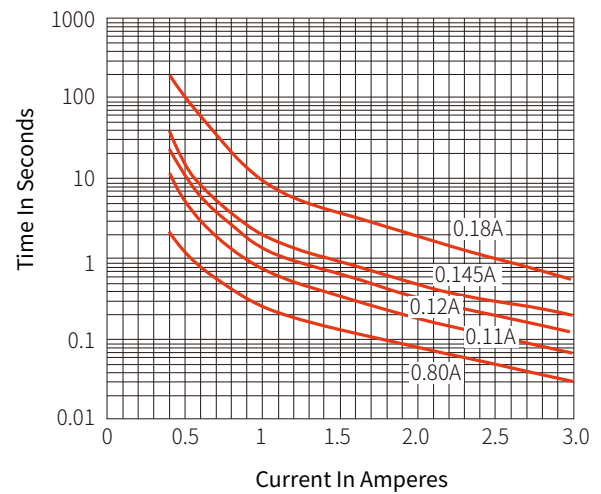
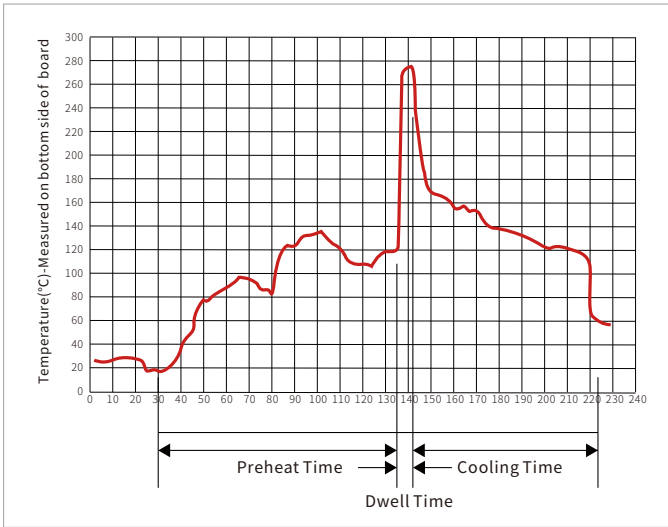


FIG.2: Average Time Current Curves



## 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
SK250-020~SK250-180	1000pcs	Bulk
SK250-200~SK250-600	500pcs	Bulk
SK250-800~SK250-2000	200pcs	Bulk

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