ELECTRIC SPECIFICATION

Electric Characteristics

Model	V_{max} (Vdc)	I_{max} (A)	I_{hold} @25℃ (A)	I_{trip} @25℃ (A)	Pd Typ. (W)	Maximum Time To Trip Current (A)	Maximum Time To Trip Time (Sec)	Resistance Ri_{min} (Ohm)	Resistance Ri_{typ} (Ohm)	Resistance $R1_{max}$ (Ohm)
BpS20-300-60	60	10	0.30	0.60	1.5	1.5	3.0	0.600	0.900	4.800
BpS20-500-60	60	10	0.50	1.00	1.5	2.5	4.0	0.180	0.280	1.400
BpS20-750-33	33	40	0.75	1.50	1.5	8.0	0.3	0.100	0.155	1.000
BpS20A01.10-33	33	40	1.10	2.20	1.5	8.0	0.5	0.065	0.090	0.410
BpS20A01.25-33	33	40	1.25	2.50	1.5	8.0	2.0	0.050	0.070	0.250
BpS20A01.50-33	33	40	1.50	3.00	1.5	8.0	2.0	0.035	0.045	0.230
BpS20A01.85-33	33	40	1.85	3.70	1.5	8.0	2.5	0.030	0.040	0.150
BpS20A02.00-16	16	40	2.00	4.00	1.5	8.0	4.5	0.020	0.028	0.120
BpS20A02.50-16	16	40	2.50	5.00	1.5	8.0	16.0	0.020	0.028	0.085
BpS20A02.60-16	16	40	2.60	5.20	1.5	8.0	10.0	0.014	0.020	0.075
BpS20A03.00-16	16	40	3.00	6.00	1.5	8.0	20.0	0.012	0.017	0.048

I_{hold} = Hold Current. Maximum current device will sustain for 30min without tripping in 25℃ still air.

I_{trip} = Trip Current. Minimum current at which the device will trip in 25℃ still air.

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

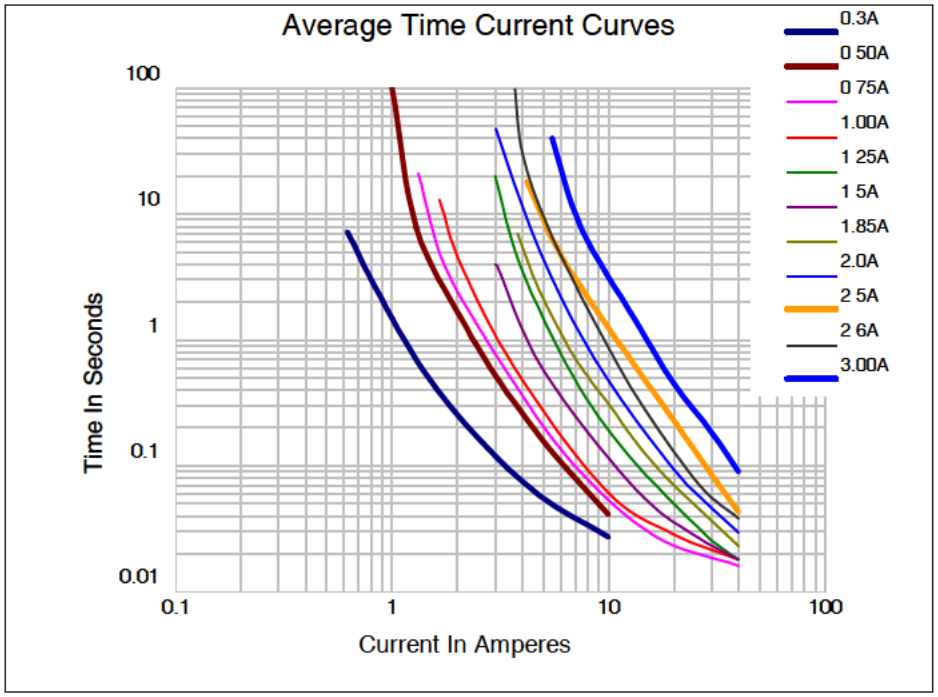
I_{max} = Maximum fault current device can withstand without damage at rated voltage.

Pd_{typ} = Power dissipated from device when in the tripped state at 25℃ still air.

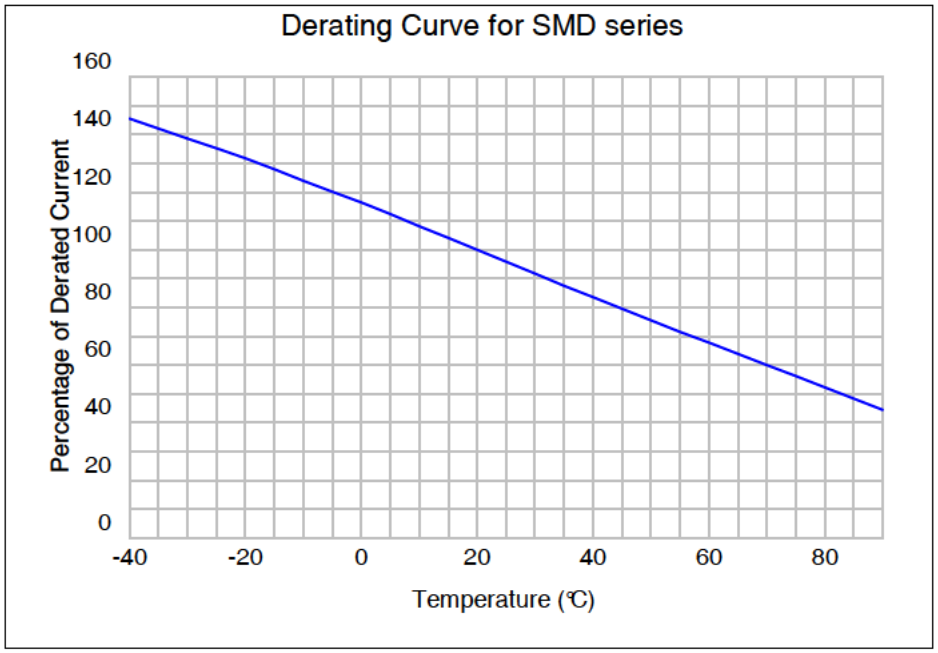
Ri_{typ} = Typical resistance of device in initial (un-soldered) state.

$R1_{max}$ = Maximum resistance of device at 25℃ measured one hour post reflow.

Average Time Current Curve



Thermal Derating Curve

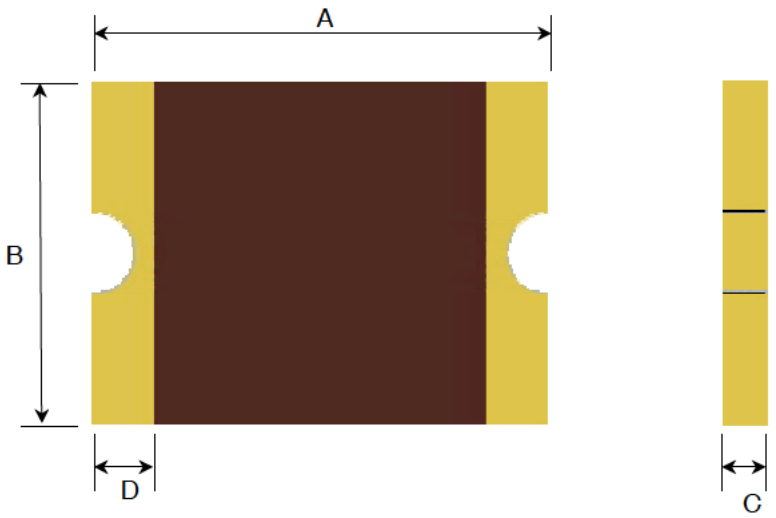


MECHANICAL SPECIFICATIONS

Physical Dimensions (unit: mm)

Model	A		B		C		D
	Min.	Max.	Min.	Max.	Min.	Max.	Min.
BpS20-300-60	6.73	7.98	4.80	5.44	0.60	1.15	0.30
BpS20-500-60	6.73	7.98	4.80	5.44	0.60	1.15	0.30
BpS20-750-33	6.73	7.98	4.80	5.44	0.60	1.15	0.30
BpS20A01.10-33	6.73	7.98	4.80	5.44	0.40	1.00	0.30
BpS20A01.25-33	6.73	7.98	4.80	5.44	0.40	0.90	0.30
BpS20A01.50-33	6.73	7.98	4.80	5.44	0.40	0.90	0.30
BpS20A01.85-33	6.73	7.98	4.80	5.44	0.30	0.90	0.30
BpS20A02.00-16	6.73	7.98	4.80	5.44	0.30	0.90	0.30
BpS20A02.50-16	6.73	7.98	4.80	5.44	0.30	0.90	0.30
BpS20A02.60-16	6.73	7.98	4.80	5.44	0.30	0.90	0.30
BpS20A03.00-16	6.73	7.98	4.80	5.44	0.30	0.90	0.30

Outline Drawing



ENVIRONMENT

Operating Conditions

Operating Temperature : -40ºC to 85ºC
Device Surface Temperature : 125ºC maximum

Environmental Specifications

The device specified follows the UL Standard for Safety for Thermistor-Type Devices, UL1434, April 3, 2000 Edition.

TEST ITEM	EVALUATION	MEASUREMENT
Resistance/Temperature (R/T) Measurement	The measured resistance at various temperatures were recorded for each "as-received" and "after conditioning" sample.	Resistance and Temperature
1000 Hour Thermal Aging	Each sample was conditioned by letting the devices remain in their "tripped" state for 1000 hours.	R/T Curves before and after each test
Heat-Cold-Humidity Cycling	24 hrs at the steady-state temperature, 168 hrs at a relative humidity of 90 - 95% at 40ºC. 8 hrs at 0ºC.	R/T Curves before and after each test
Overload and Endurance	50 cycles at a 120% maximum current (Imax) and maximum voltage (Vmax). 6,000 cycles at a maximum voltage and current over than a 300% trip current (Itrip).	R/T Curves before and after each test
Cold Operational	1,000 cycles in the Endurance Test, except the samples were operated in a freezer at 0°C.	R/T Curves before and after each test
Thermal Runaway	0 volt to 200% of Vmax at 2-minute intervals. The 200% voltage was maintained for 2 minutes.	No burning, arcing and breakdown

*All samples shall be mounted on PCB before testing.

Solder reflow conditions