

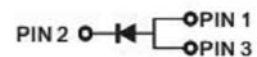
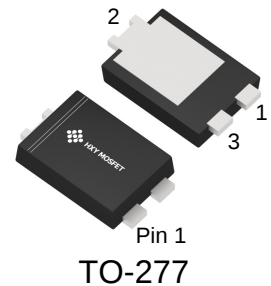


Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
ST2045	TO-277	SB2045L	5000



Maximum Ratings (Ta=25°C unless otherwise noted)

Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Type Number	ST2045	Unit
Maximum Recurrent Peak Reverse Voltage	45	V
Maximum RMS Voltage	32	V
Maximum DC Blocking Voltage	45	V
Maximum Average Forward Rectified Current See Fig. 1	20.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
Maximum Instantaneous Forward Voltage at 20.0A	0.52	V
Maximum DC Reverse Current Ta=25°C	0.3	mA
at Rated DC Blocking Voltage Ta=125°C	20	mA
Typical Junction Capacitance (Note1)		pF
Typical Thermal Resistance R _{JA} (Note 2)	31	°C/W
Operating Temperature Range T _J	-65 to +150	°C
Storage Temperature Range T _{STG}	-65 to +150	°C

Note : 1.FR-4 PCB, 2oz.Copper.

2.Polyimide PCB, 2oz.Copper.Cathode pad dimensions 18.8mm x 14.4mm.Anode pad dimensions 5.6mm x 14.4mm.



Typical Characteristics

Fig. 1 - Forward Power Dissipation

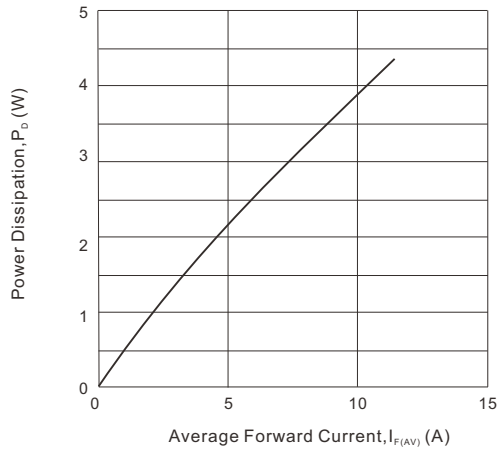


Fig. 2 - Instantaneous Forward Characteristics

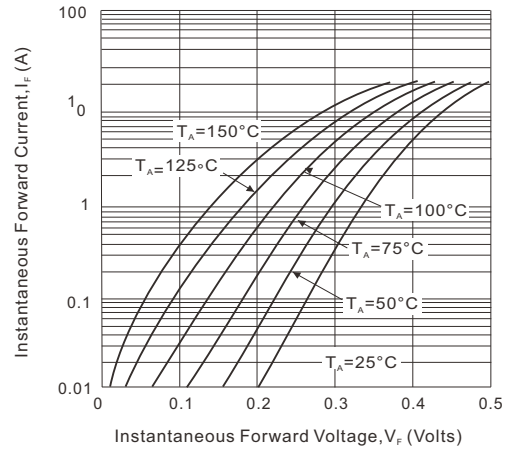


Fig. 3 - Reverse Characteristics

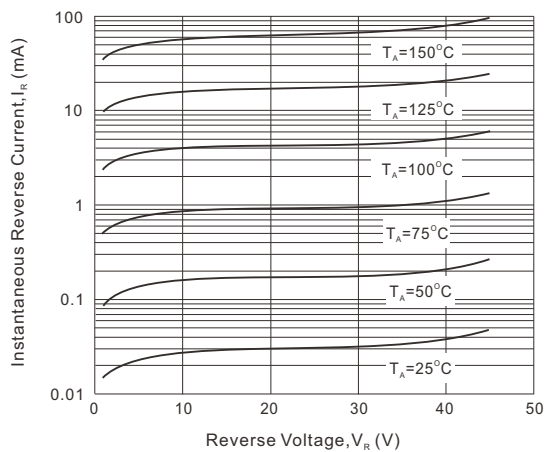


Fig. 4 - Forward Current Derating Curve

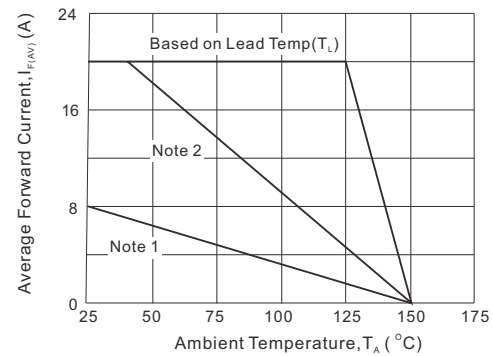


Fig. 5 - Total Capacitance VS. Reverse Voltage

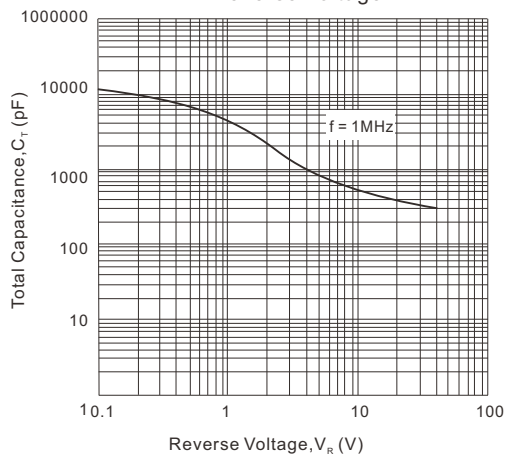
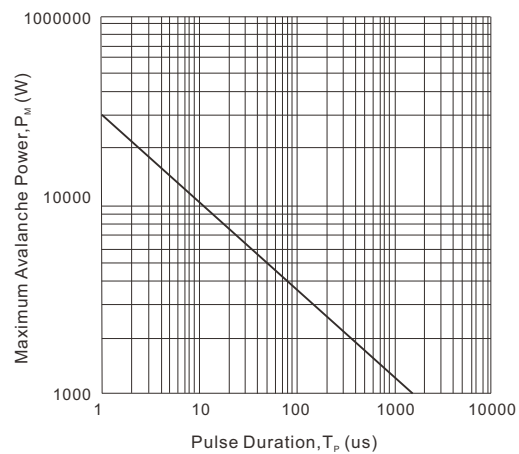
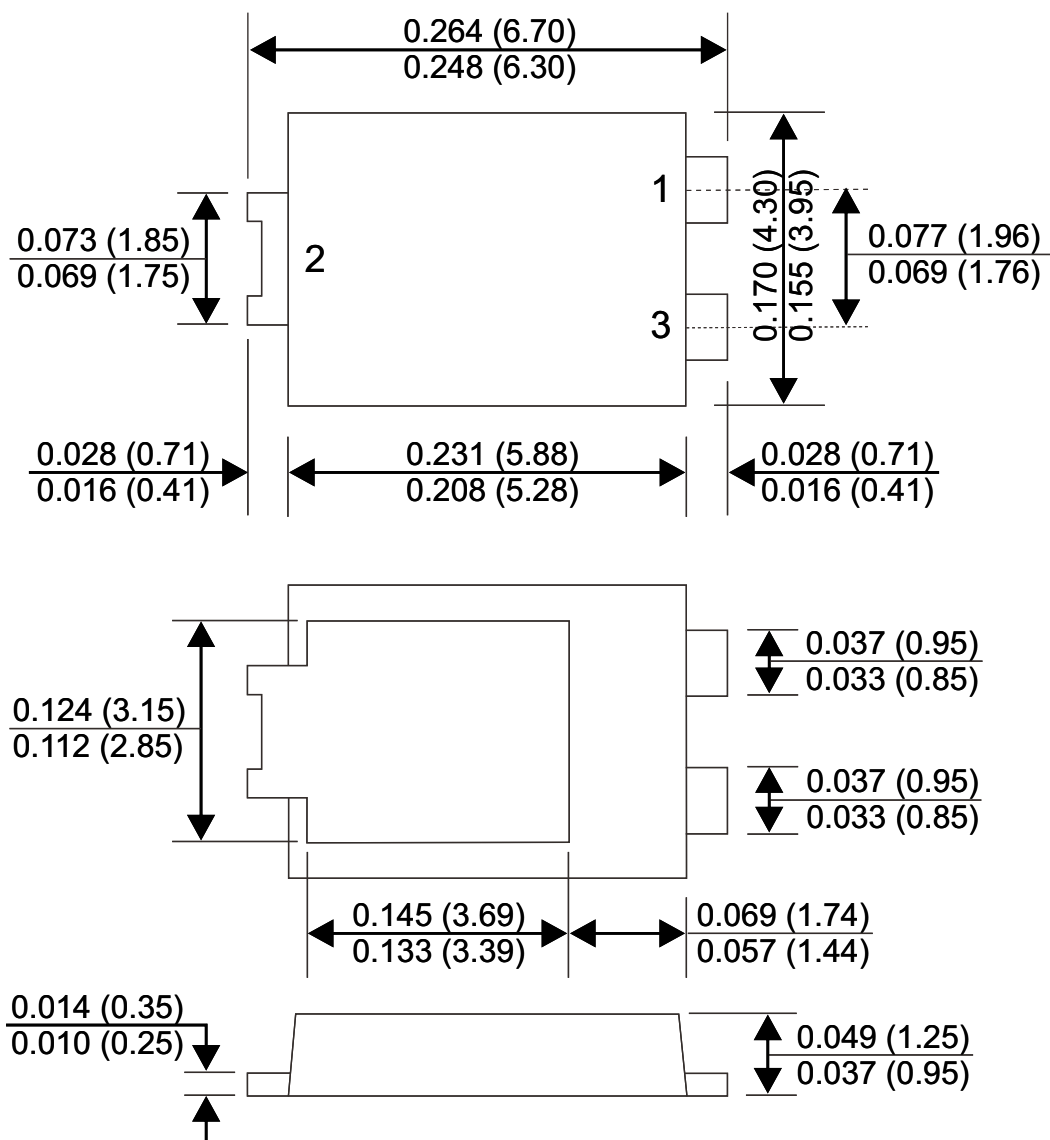


Fig. 6 - Maximum Avalanche Power Curve





TO-277 Package Outline Dimensions



Dimensions in inches and (millimeters)



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