

## 20.0A Surface Mount Trench Schottky Rectifier LOW VF



### ■ Features

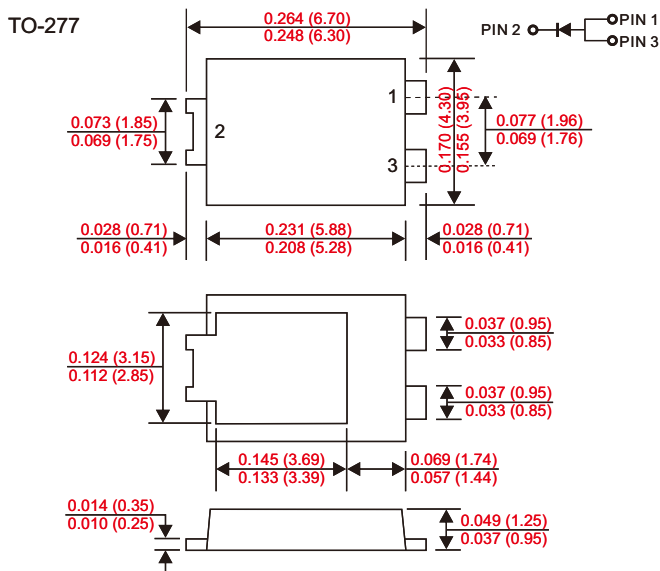
- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CP10S45SG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, TO-277.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.093 grams.

**VOLTAGE RANGE** 45 Volts

**CURRENT** 20.0 Ampere



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

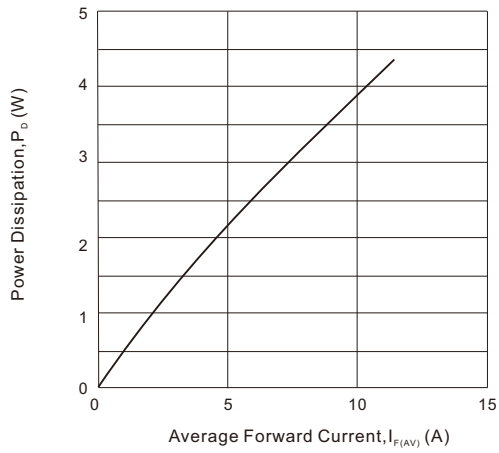
TYPE NUMBER	SB2045L	UNITS
Maximum Recurrent Peak Reverse Voltage	45	V
Maximum RMS Voltage	32	V
Maximum DC Blocking Voltage	45	V
Maximum Average Forward Rectified Current See Fig. 1	20.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200	A
Maximum 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=100°C	20	mA
Typical Junction Capacitance (Note1)		pF
Typical Thermal Resistance R JA (Note 2)	31	°C/W
Operating Temperature Range Tj	-65 — +150	°C
Storage Temperature Range Tstg	-65 — +150	°C

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

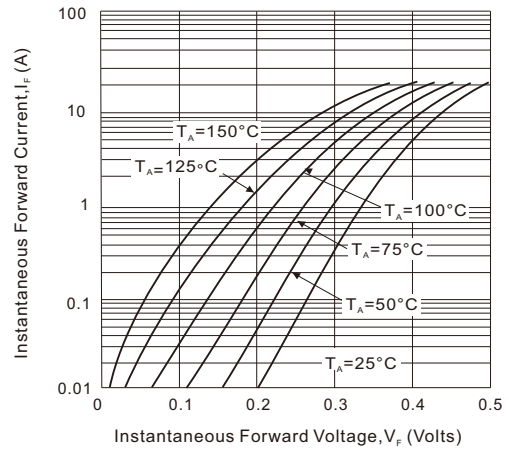
2. Polyimide PCB, 2oz.Copper.Cathode pad dimensions 18.8mm x 14.4mm.Anode pad dimensions 5.6mm x 14.4mm.

**RATING AND CHARACTERISTIC CURVES (SB2045L LOWVF)**

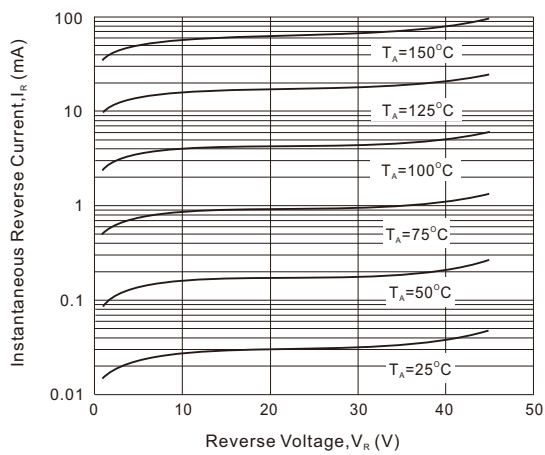
**Fig. 1 - Forward Power Dissipation**



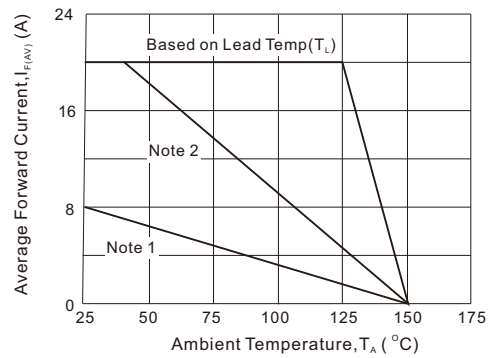
**Fig. 2 - Instantaneous Forward Characteristics**



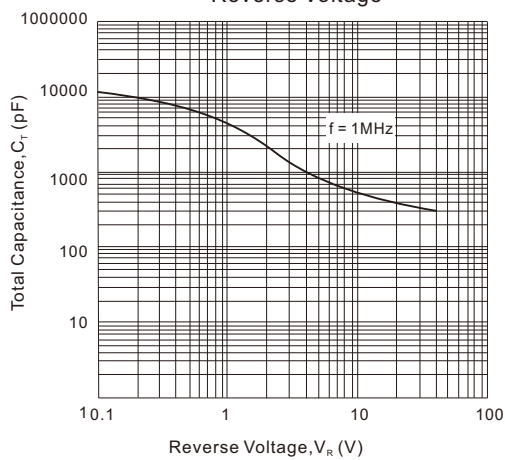
**Fig. 3 - Reverse Characteristics**



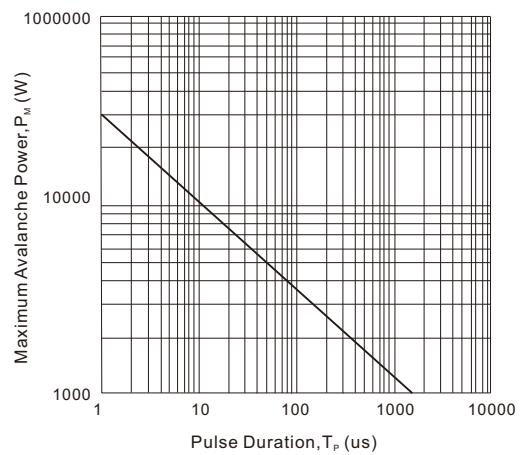
**Fig. 4 - Forward Current Derating Curve**



**Fig. 5 - Total Capacitance VS. Reverse Voltage**



**Fig. 6 - Maximum Avalanche Power Curve**



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