

# SB1045 THRU SB10100

## 10.0 AMP SCHOTTKY BARRIER RECTIFIERS



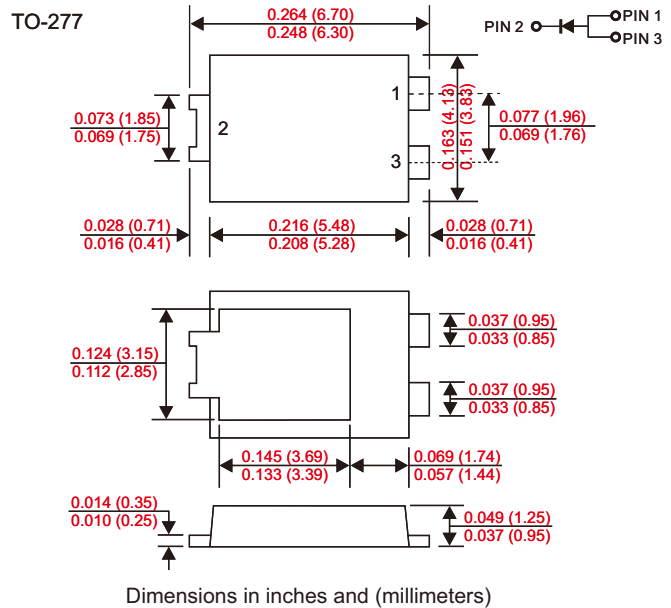
### ■ Features

- 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 -100 Volts  
**CURRENT**             10.0 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	SB1045	SB1060	SB10100	UNITS
Maximum Recurrent Peak Reverse Voltage	45	60	100	V
Maximum RMS Voltage	32	42	70	V
Maximum DC Blocking Voltage	45	60	100	V
Maximum Average Forward Rectified Current				
See Fig. 1	10.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150			A
Maximum Instantaneous Forward Voltage at 10.0A	0.55	0.7	0.85	V
Maximum DC Reverse Current     Ta=25°C	150			µA
at Rated DC Blocking Voltage     Ta=125°C	50			mA
Typical Junction Capacitance (Note1)	570			pF
Typical Thermal Resistance R <sub>JA</sub> (Note 2)	60			°C/W
Operating Temperature Range T <sub>J</sub>	-55 to +150			°C
Storage Temperature Range T <sub>stg</sub>	-55 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.

# RATING AND VCHARACTERISTIC CURVES(SB1045 THRU SB10100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

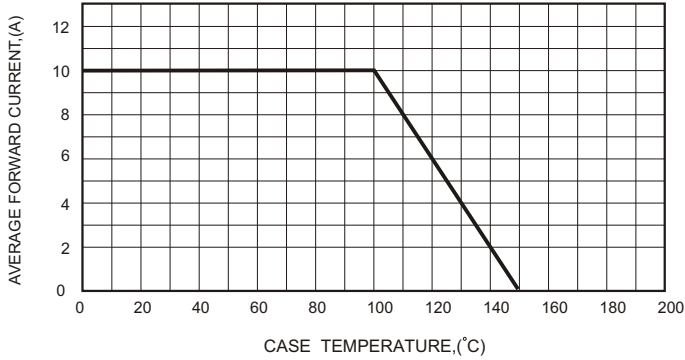


FIG.2-TYPICAL FORWARD CHARACTERISTICS

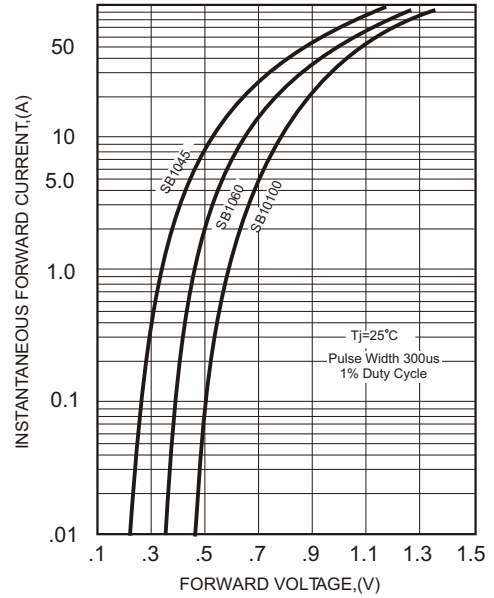


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

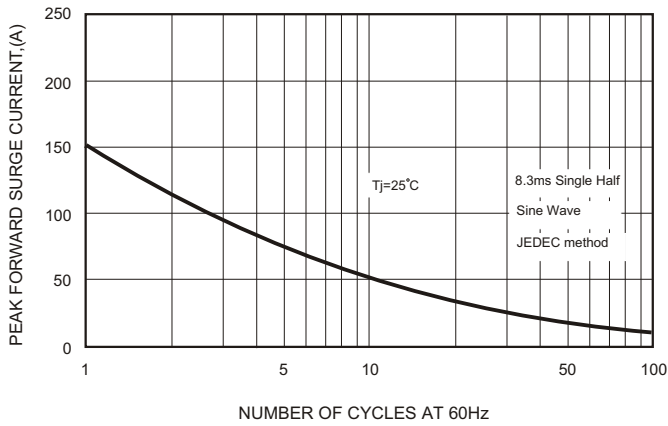


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

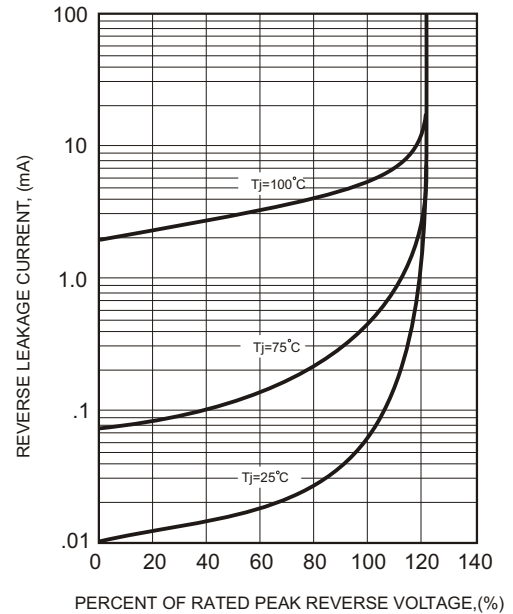
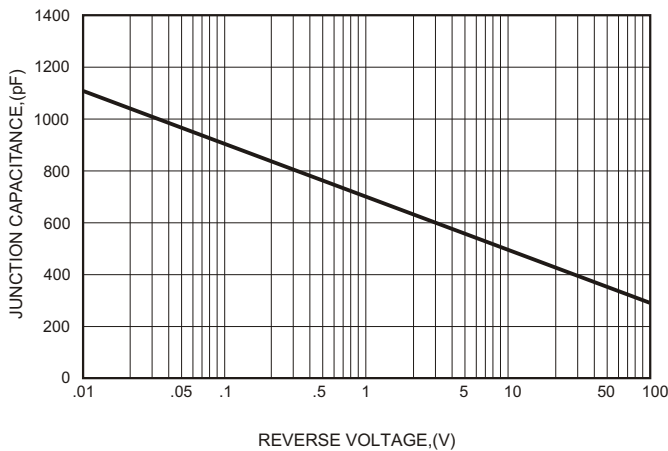


FIG.4-TYPICAL JUNCTION CAPACITANCE



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