

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

TO-277

- ◆ The plastic package carries Underwriters Laboratory
- ◆ Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Built-in strain relief, ideal for automated placement
- ◆ Low forward voltage drop
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
250°C/10 seconds at terminals



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Parameter	SYMBOL	SB1045L	UNIT
Marking Code		SB1045L	
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum DC blocking voltage	V_{DC}		
RMS Reverse voltage	V_{RMS}	31.5	V
Average Rectified Output Current	$I_{(O)}$	10	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method)	I_{FSM}	175	A

Electrical Characteristics $T_a=25^{\circ}\text{C}$ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ	Max	
Forward Voltage Drop	at 10A	V_F	-	0.55	V
Peak reverse current at rated DC blocking voltage	$T_A=25^{\circ}\text{C}$	I_R	-	0.5	mA
	$T_A=125^{\circ}\text{C}$		-	50	mA
Typical thermal resistance		$R_{\theta JA}$	60.0		$^{\circ}\text{C/W}$
Operating junction temperature range		T_J	-55 to +150		$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +150		$^{\circ}\text{C}$

Note: 1. The typical data above is for reference only.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

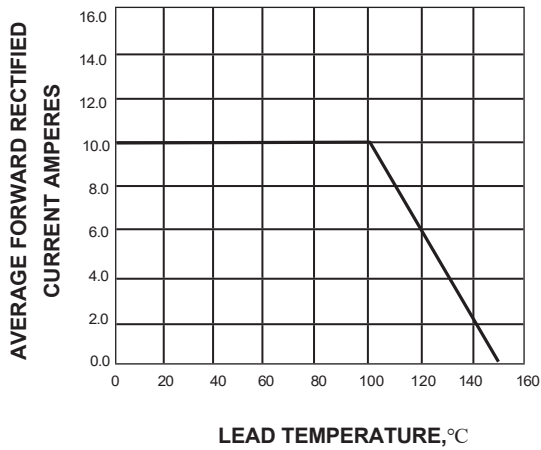


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

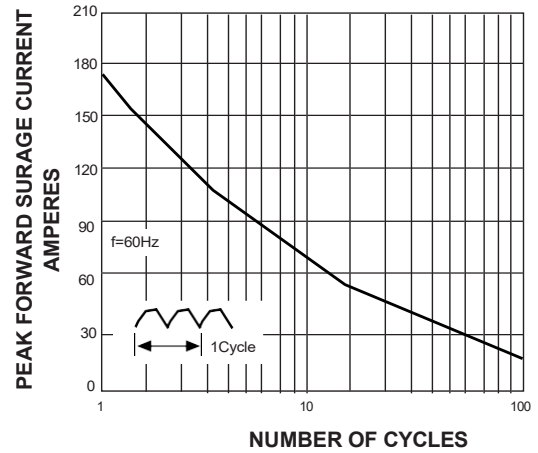


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

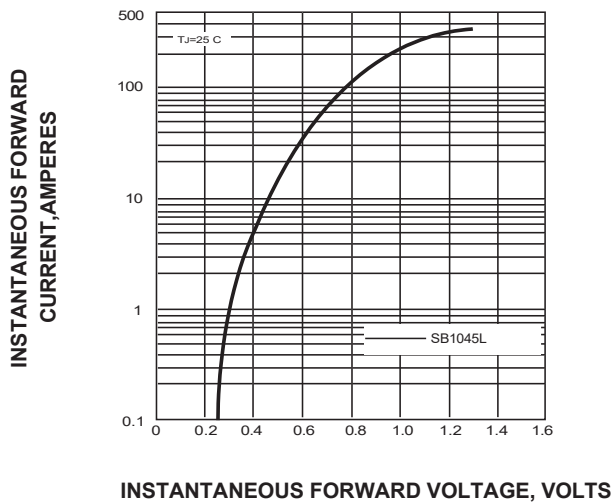
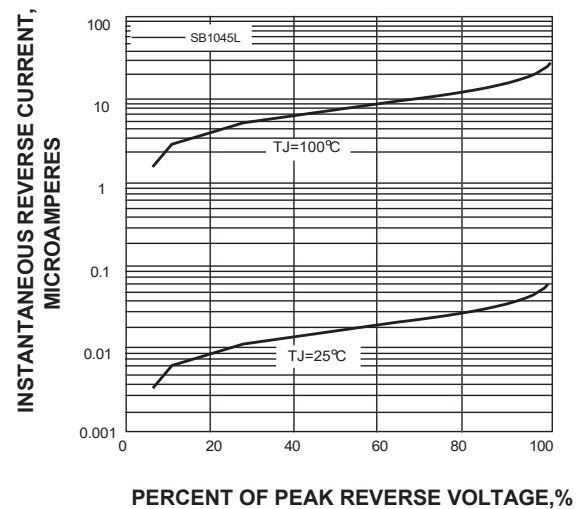


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.