

VOLTAGE RANGE: 45-50V

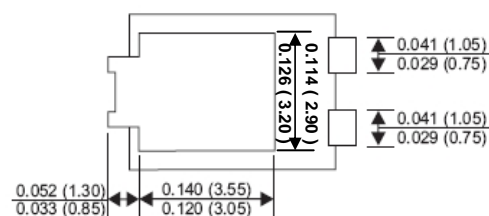
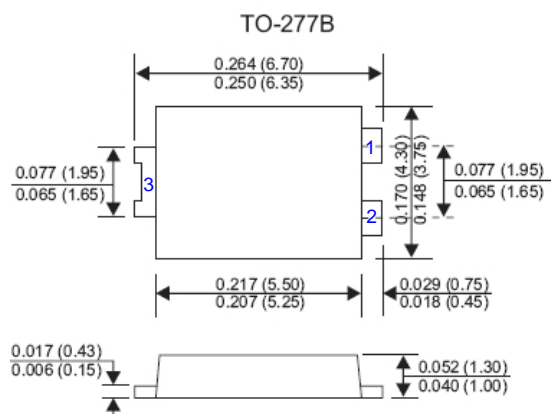
CURRENT: 10 A

Features

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- HALOGEN FREE

Mechanical Data

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY:AS MARKED
- WEIGHT: 0.095 GRAMS (APPROXIMATELY)



Dimensions in inches and (millimeters)

at rated DC blocking voltage

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

RATINGS	Symbol	SB1045L	SB1050L	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	45	50	V
Maximum RMS voltage	V_{RMS}	31.5	35	V
Maximum DC blocking voltage	V_{DC}	45	50	V
Maximum average forward rectified current at T_L (see fig.1)	I_O	10		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per leg	I_{FSM}	250		A
Storage temperature range	T_{STG}	- 65 TO + 150		$^\circ\text{C}$
Operating junction temperature range	T_J	- 55 TO + 125		$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	SB1045L	SB1050L	UNITS
Maximum forward voltage AT $I_F=10\text{A}$ $T_J=25^\circ\text{C}$	VF	0.50		V
$T_J=125^\circ\text{C}$		0.40		
Typical forward voltage AT $I_F=2\text{A}$ $T_J=125^\circ\text{C}$		0.25		
Typical forward voltage AT $I_F=5\text{A}$ $T_J=125^\circ\text{C}$		0.30		
Typical forward voltage AT $I_F=8\text{A}$ $T_J=125^\circ\text{C}$		0.35		
Maximum forward voltage $T_A=25^\circ\text{C}$ (NOTE 1)	I_R	0.2		mA
Maximum forward voltage $T_A=125^\circ\text{C}$ (NOTE 1)	I_R	20		mA

THERMAL CHARACTERISTICS (TC=25UNLESS OTHERWISE NOTED)

Parameter	Symbol	SB1045L	SB1050L	UNITS
Typical thermal resistance junction to case per leg	$R_{\theta jc}$	23		$^\circ\text{C}/\text{W}$

NOTES: 1. PULSE TEST: 300 μs PULSE WIDTH, 1% DUTY CYCLE.

FIG. 1-FORWARD CURRENT DERATING CURVE

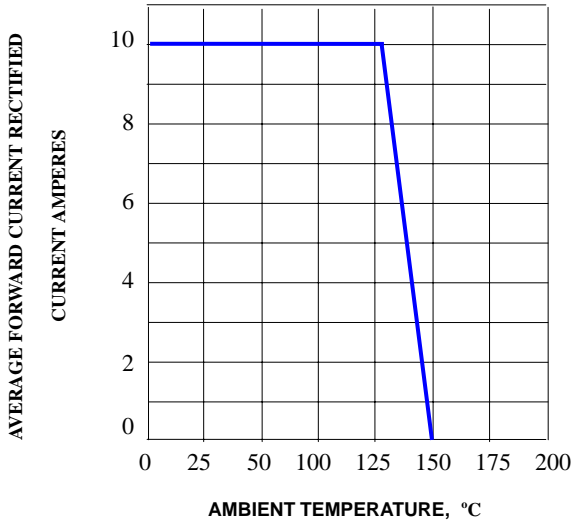


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

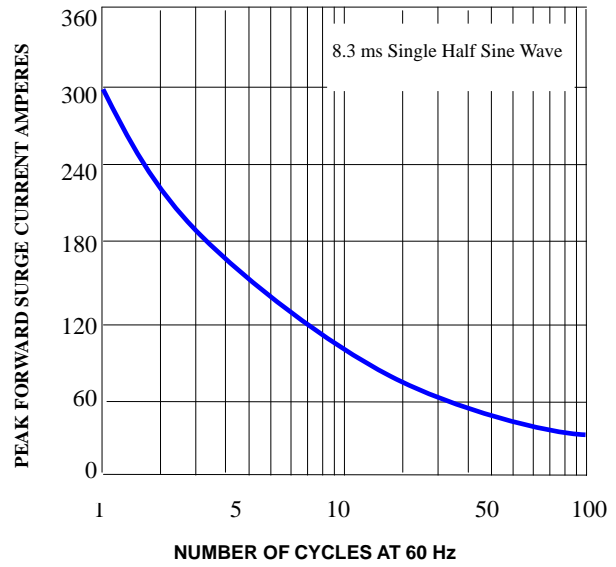


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

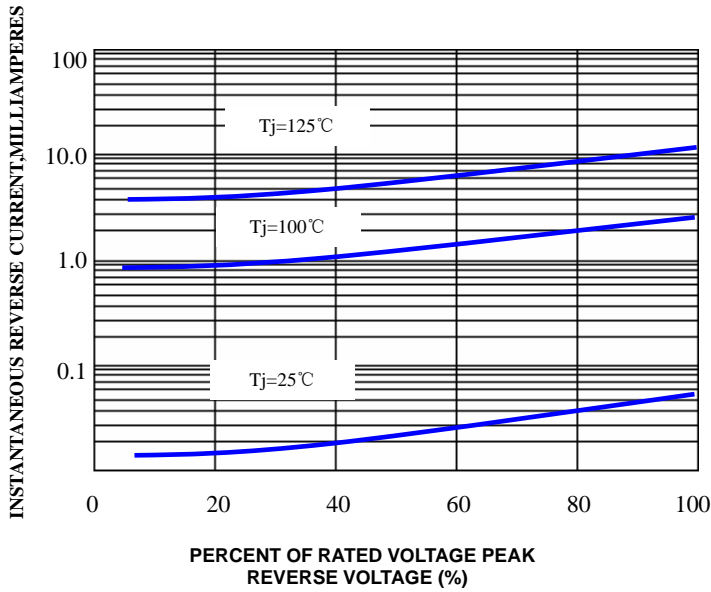


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

