

**FEATURES**

- \* Plastic package has underwriters laboratory Flammability classification 94V-0
- \* Low power loss,high efficiency
- \* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- \* Guarding for over voltage protection
- \* High temperature soldering guaranteed:  
260 C/10 seconds at terminals

**MECHANICAL DATA**

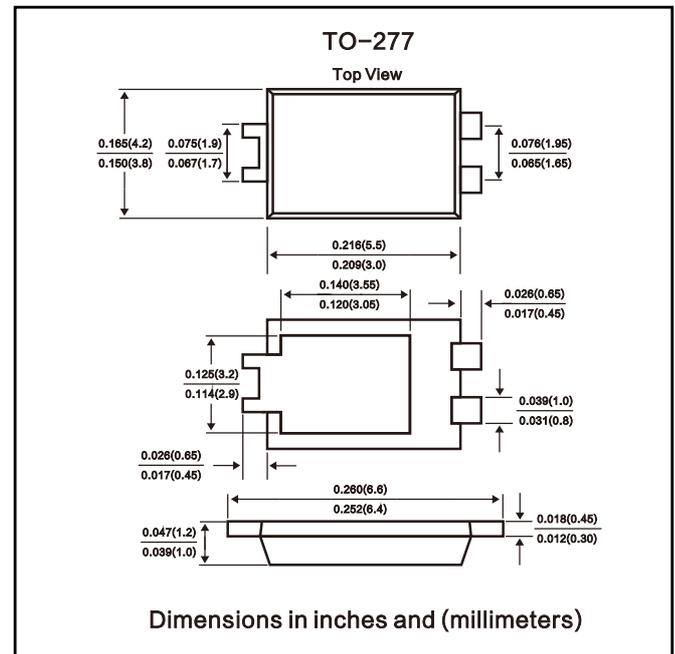
**Case:** JEDEC TO-227 molded plastic body over passivated chip

**Terminals:** Solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:**0.006 ounce, 0.02 grams


**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Parameter symbol	Symbol	SB1035L	SB1045L	SB1050L	SB1060L	SB1080L	SB10100L	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	35	45	50	60	80	100	V
Maximum RSM voltage	$V_{RSM}$	35	45	50	60	80	100	V
Maximum DC blocking voltage	$V_{DC}$	35	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See fig. 1)	$I_{F(AV)}$	10.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM1}$	175						A
Thermal resistance, junction to ambient	$R_{\theta JA}$	40						C/W
Operating storage temperature range	$T_J$	-55 to +150						C
storage temperature range	$T_{STG}$	-55 to +175						C

**Electrical Characteristics Ratings at 25 C ambient temperature unless otherwise specified.**

Parameter symbol	Symbol	SB1035L	SB1045L	SB1050L	SB1060L	SB1080L	SB10100L	Unit
Maximum instantaneous forward voltage at 10.0A	$V_F$	0.55	0.60	0.70	0.90			V
Maximum DC reverse current TC = 25 C	$I_r$	200						$\mu$ A
Maximum DC reverse current TC = 100 C	$I_r$	1000						$\mu$ A
Typical junction capacitance at 4.0V, 1MHz	$C_J$	500			380			PF

Notes:

1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

Fig. 1 Forward Current Derating Curve

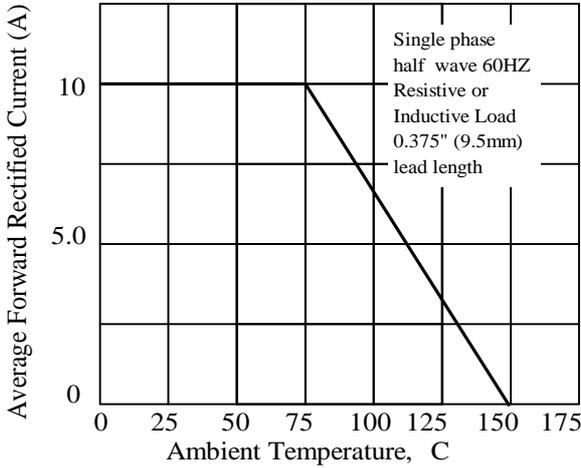


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

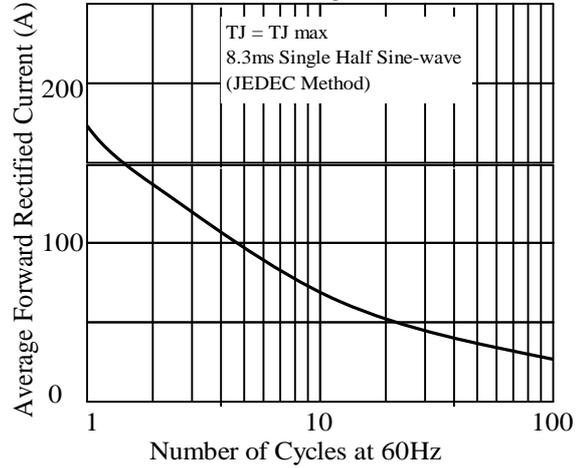


Fig. 3. Typical Instantaneous Forward Characteristics

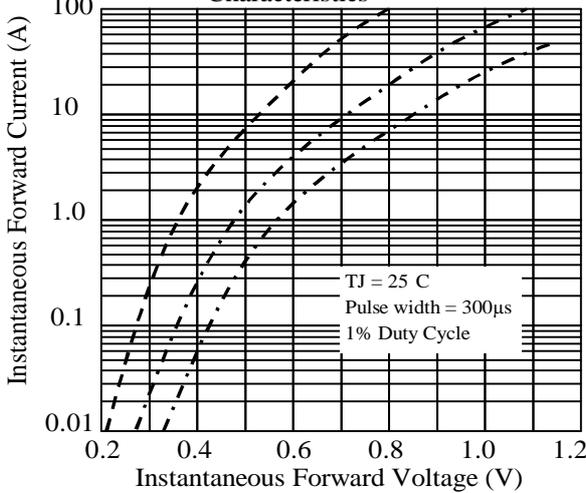


Fig. 4. Typical Reverse Characteristics

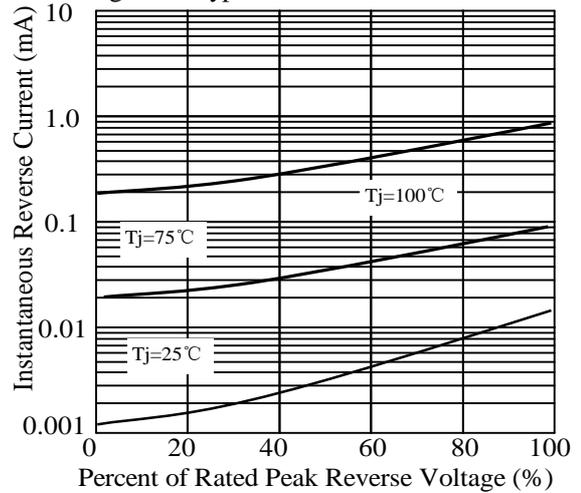


Fig. 5. typical transient thermal impedance

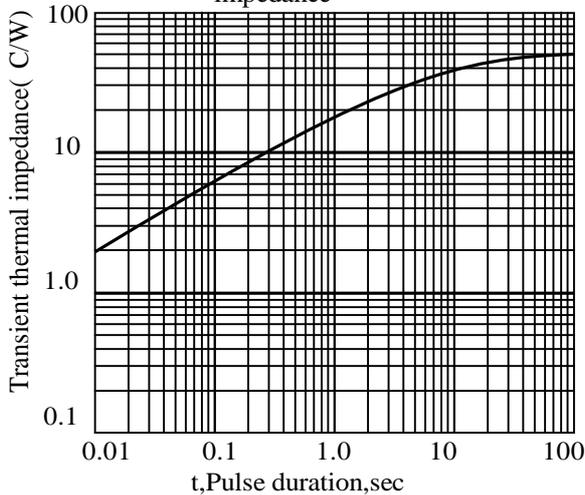


Fig. 6. Typical Junction Capacitance

