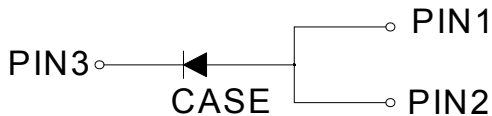
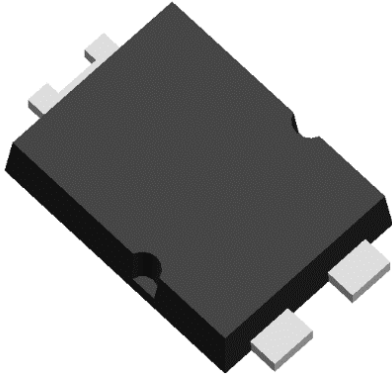


Schottky Rectifier



Features

- Ideal for automated placement
- Low power losses
- High forward surge capability
- Meets MSL level1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in lighting, fast switching rectification of power suppliers, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

Mechanical Data

• **Package:** TO-277

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen free

- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SB1045L	SB1060L	SB10100L	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	45	60	100	V
MAXIMUM RMS VOLTAGE	V_{RMS}	31.5	42	70	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	45	60	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG	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 + 175			°C
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO + 150			°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	SB1045L	SB1060L	SB10100L	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_F = 10A$ $T_J = 25^\circ C$	VF	0.50	0.65	0.75	V
$T_J = 125^\circ C$		0.43	0.55	0.65	
TYPICAL FORWARD VOLTAGE AT $I_F = 1A$ $T_J = 125^\circ C$		0.28	0.35	0.42	
TYPICAL FORWARD VOLTAGE AT $I_F = 3A$ $T_J = 125^\circ C$		0.33	0.38	0.48	
TYPICAL FORWARD VOLTAGE AT $I_F = 5A$ $T_J = 125^\circ C$		0.36	0.42	0.55	
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	I_R	0.1			mA
MAXIMUM REVERSE CURRENT AT 125°C PER LEG (NOTE 1)	I_R	20			mA

THERMAL CHARACTERISTICS ($T_c = 25^\circ C$ UNLESS OTHERWISE NOTED)

PARAMETER	SYMBOL	SB1045L	SB1060L	SB10100L	UNITS
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R_{\theta jc}$	23			°C/W

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

FIG. 1-FORWARD CURRENT DERATING CURVE

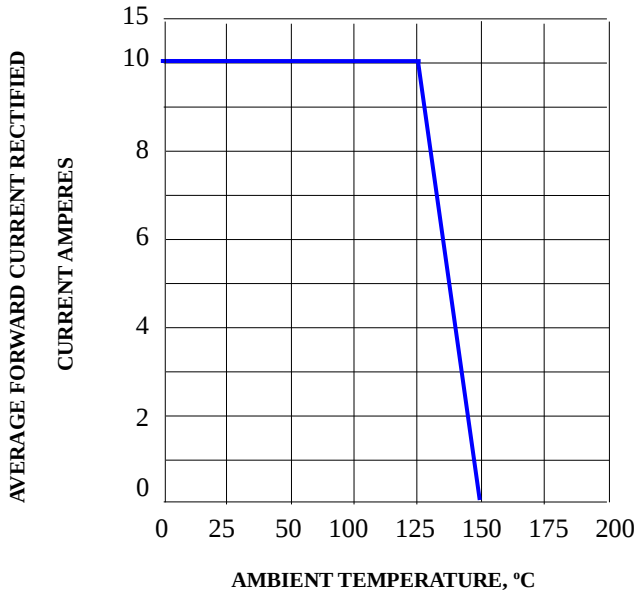


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

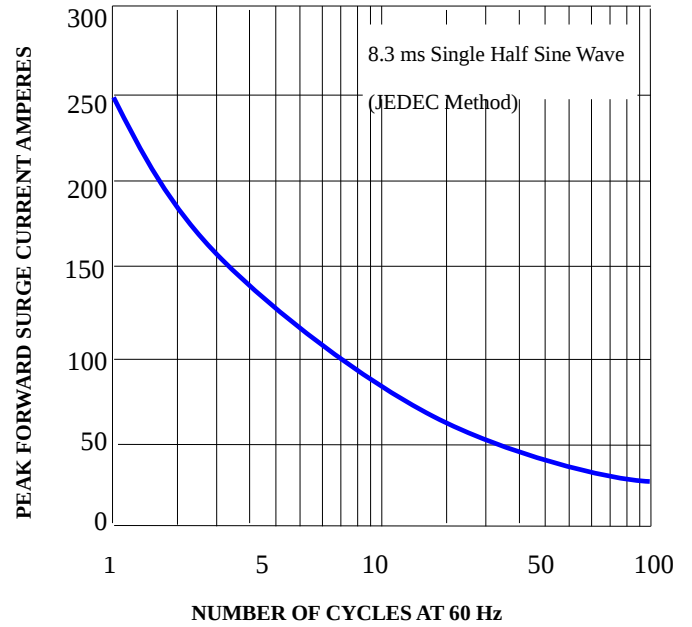


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

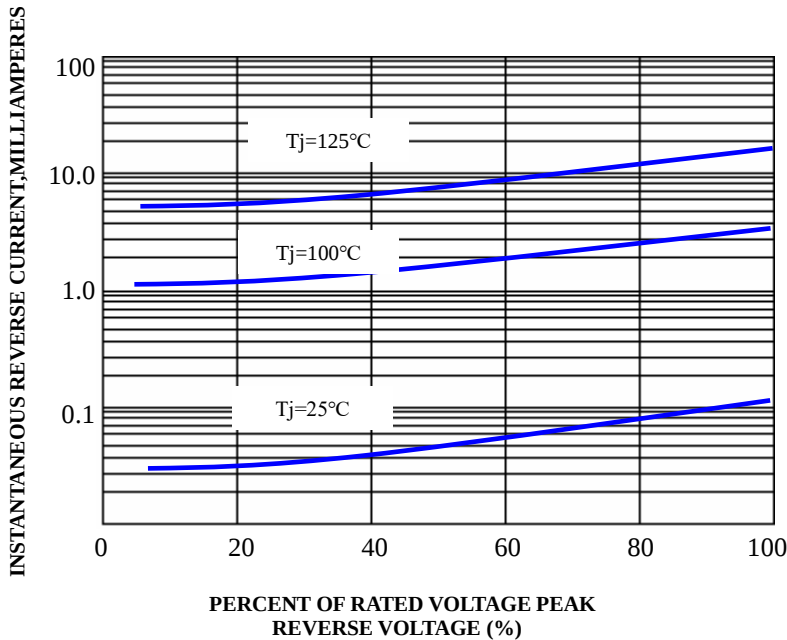
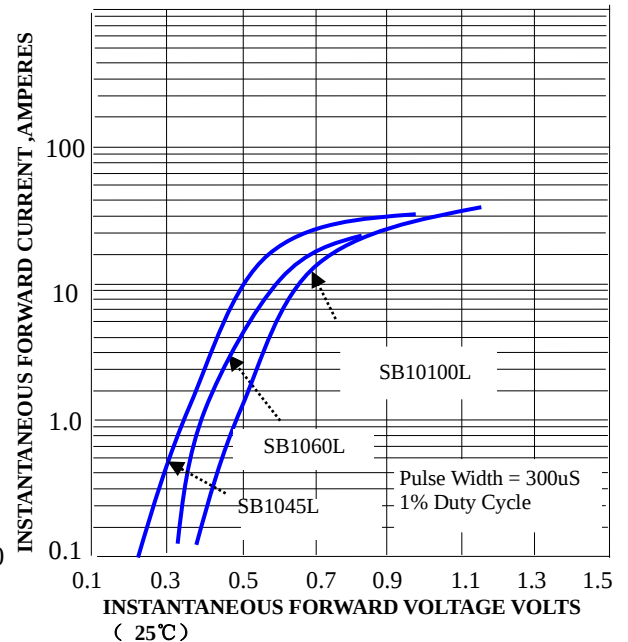


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

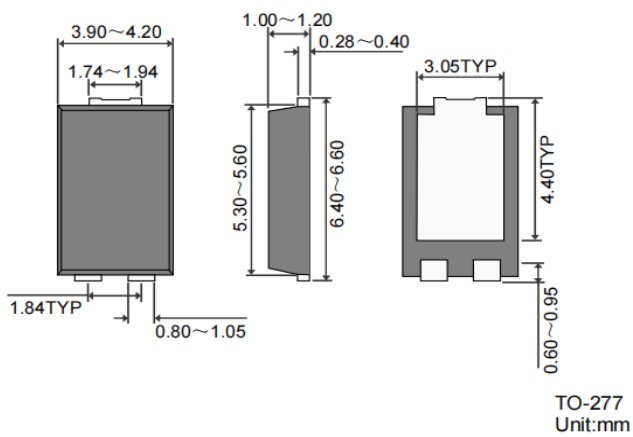


SB1045L-SB10100L

■ Ordering Information (Example)

P/N	PKG	QTY
SB1045L-SB10100L	TO-277	5000

Package Outline Dimensions



Suggested Solder Pad Layout

