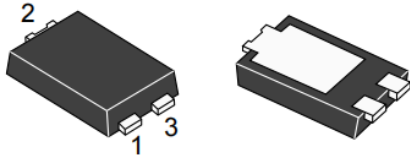


Schottky Rectifier

TO-277



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
- Part no. with suffix "Q" means AEC-Q101 qualified

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

FEATURES

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- HALOGEN FREE

MECHANICAL DATA

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

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	SB15100L	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	100	V
MAXIMUM RMS VOLTAGE	V_{RMS}	70	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	100	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG	I_O	15	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	°C
OPERATING JUNCTION TEMPERATURE RANGE	T_J	- 55 TO + 150	°C

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	SB15100L	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_F = 15A$ $T_J = 25^\circ C$ TYPICAL	VF	0.75	V
		0.65	
TYPICAL Reverse Recovery Time		/	
TYPICAL FORWARD VOLTAGE AT $I_F = 2A$ $T_J = 125^\circ C$		0.45	
TYPICAL FORWARD VOLTAGE AT $I_F = 2A$ $T_J = 125^\circ C$		0.35	
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	I_R	50	uA
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	SB15100L	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

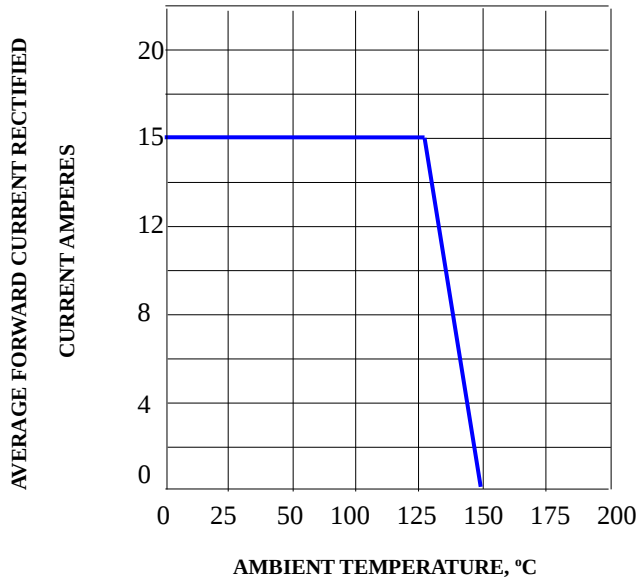


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

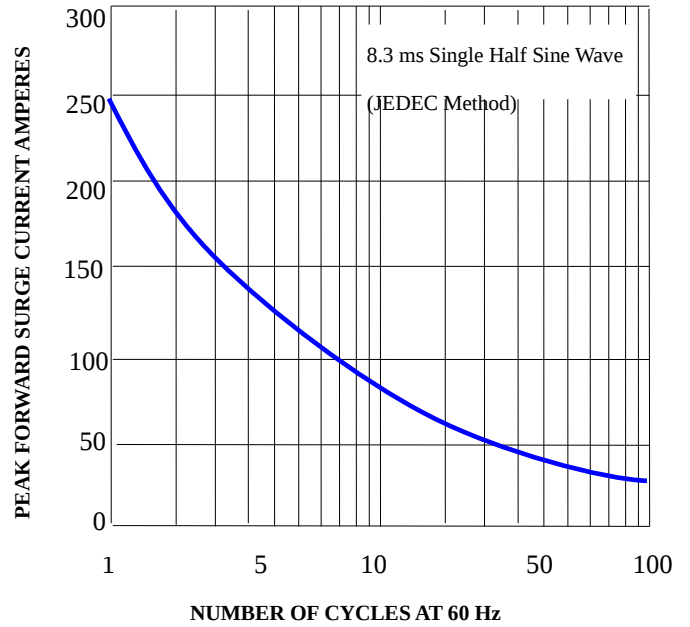


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

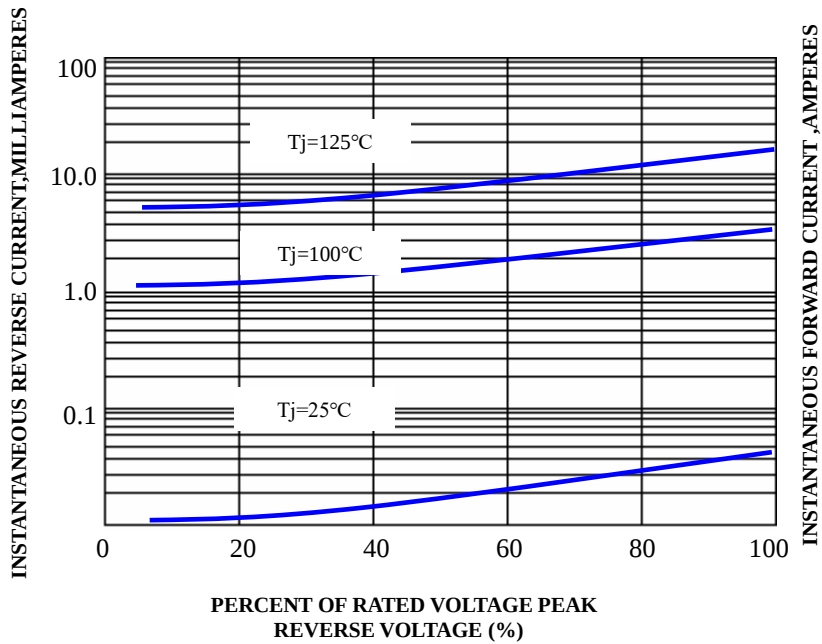
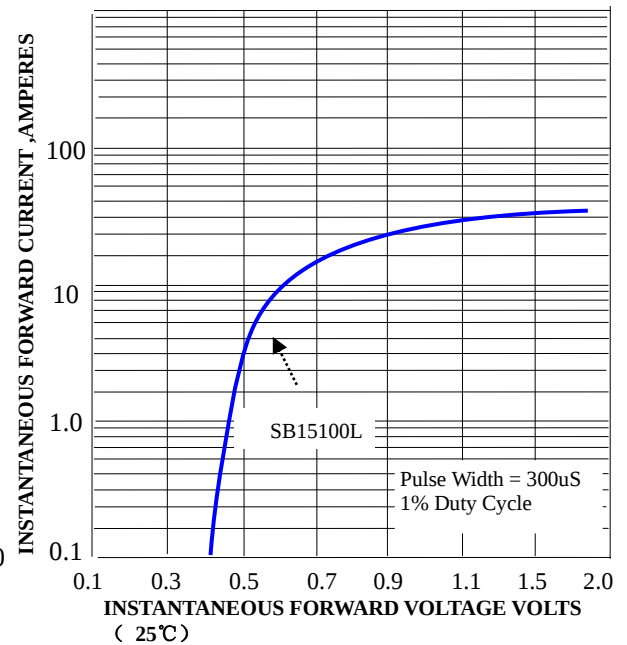


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



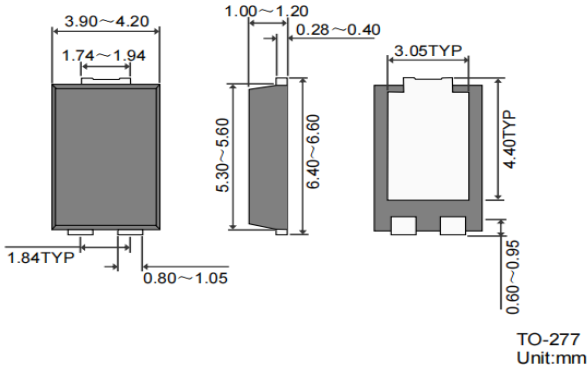
SB15100L

■ Ordering Information (Example)

P/N	PKG	QTY
SB15100L	T0-277	5000

■ Outline Dimensions

Package Outline Dimensions



Suggested Solder Pad Layout

