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SEMICONDUCTOR



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SB1045L-MS THRU SB10100L-MS

Product specification

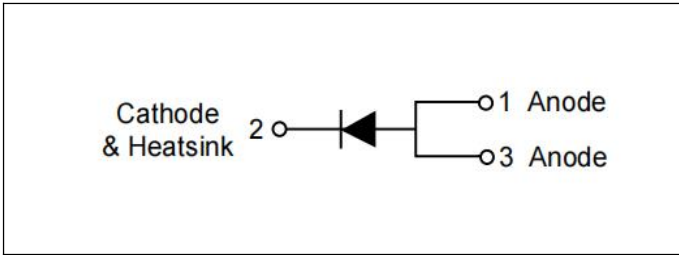
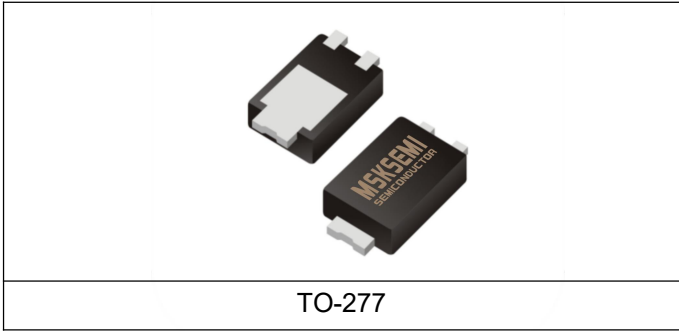
FEATURES

- 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)

Reference News



Marking Information

SB1045L-MS	SB1060L-MS	SB10100L-MS

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-MS	SB1060L-MS	SB10100L-MS	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-MS	SB1060L-MS	SB10100L-MS	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_F=10A$ $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	VF	0.50 0.43	0.65 0.55	0.75 0.65	V
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-MS	SB1060L-MS	SB10100L-MS	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.

RATINGS AND CHARACTERISTIC CURVES OF SB1045L-MS THRU SB10100L-MS

FIG. 1-FORWARD CURRENT DERATING CURVE

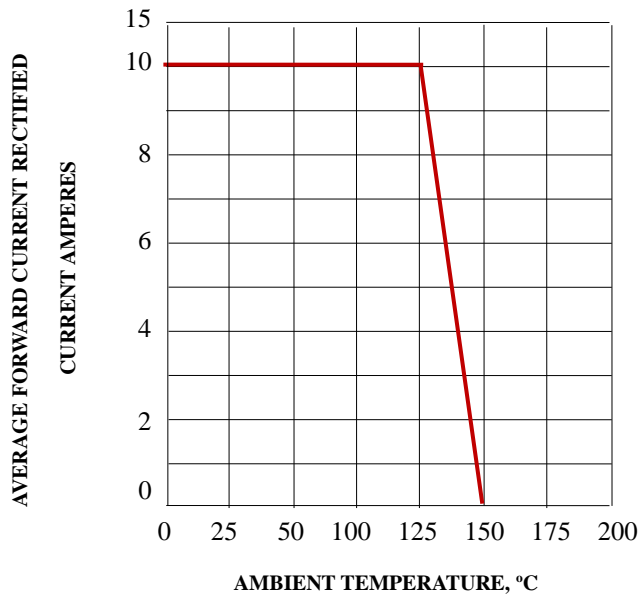


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

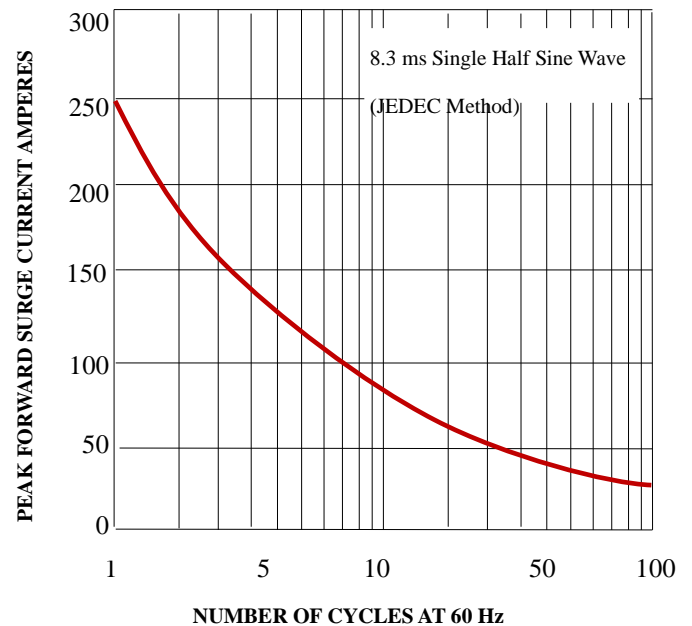


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

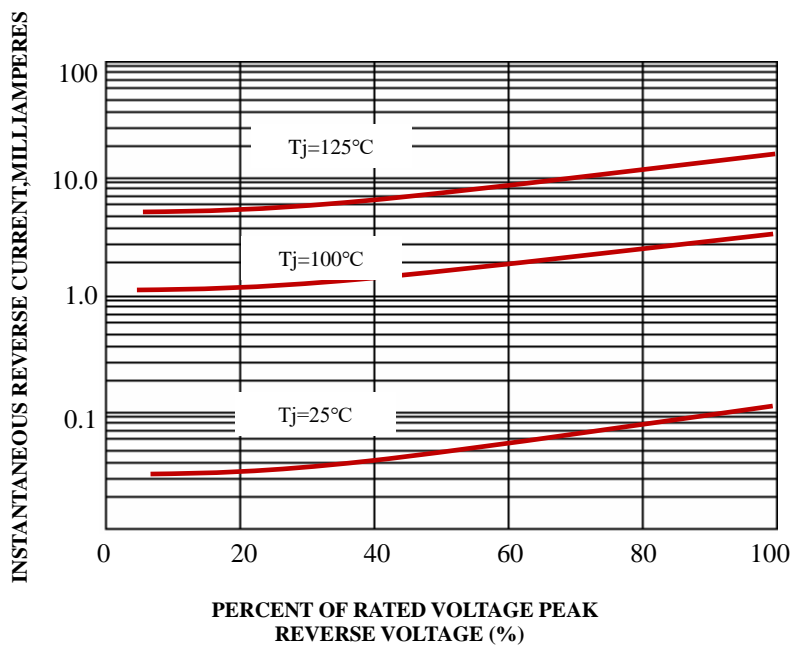
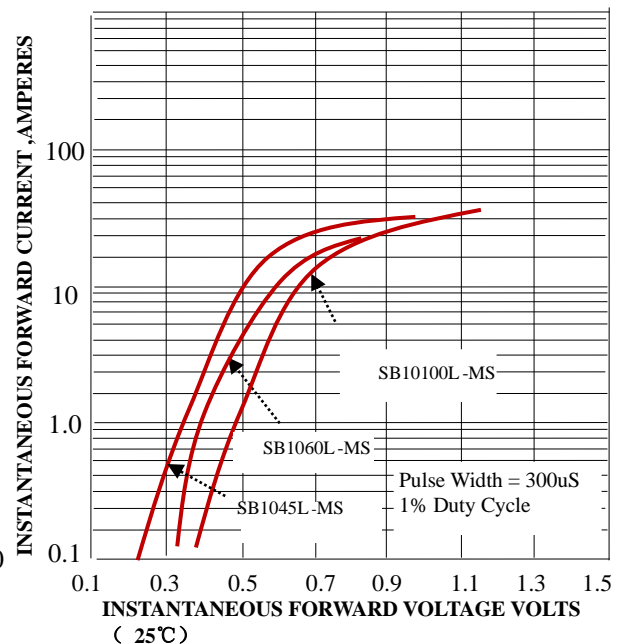
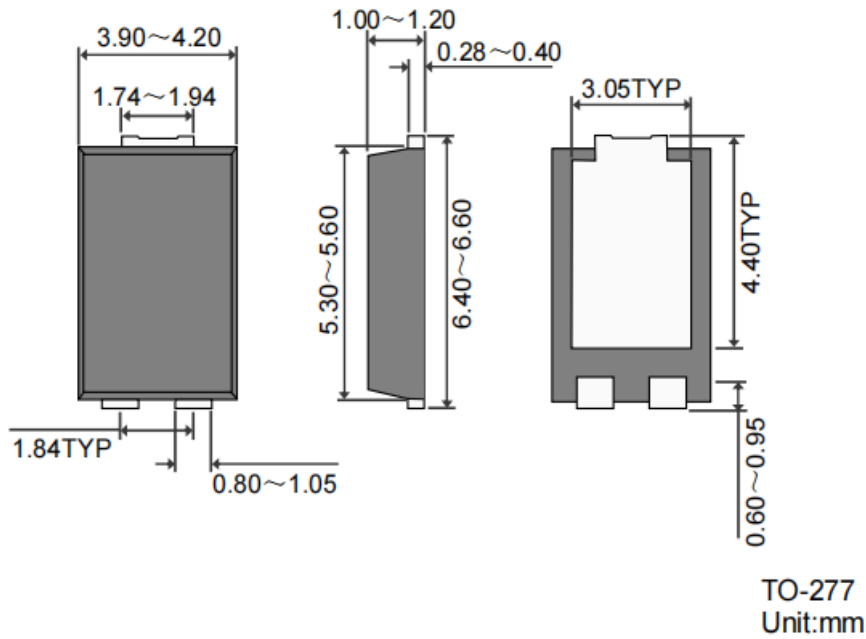


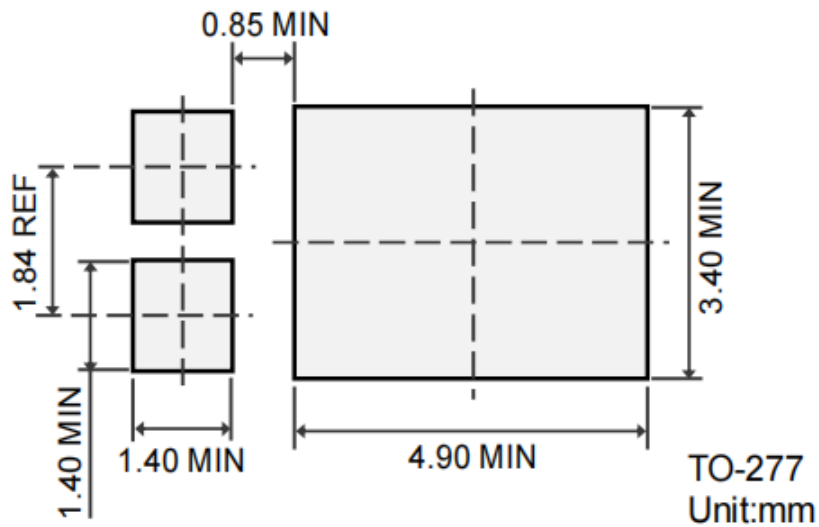
FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



Package Outline Dimensions



Suggested Solder Pad Layout



REEL SPECIFICATION

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

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