

# MSKSEMI

SEMICONDUCTOR



ESD



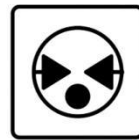
TVS



TSS



MOV



GDT

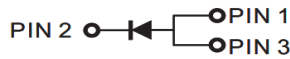


PLED

Product data sheet



**TO-277**



■ Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Suffix "G" indicates Halogen-free part, ex. CP10S45SG
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : Molded plastic, TO-277.
- Lead : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: Indicated by cathode band.
- Mounting Position : Any.
- Weight : Approximated 0.093 grams.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25 °C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

P/N(MARK)	SB1060L	UNITS
Maximum Recurrent Peak Reverse Voltage	60	V
Maximum RMS Voltage	42	V
Maximum DC Blocking Voltage	60	V
Maximum Average Forward Rectified Current See Fig. 1	10.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150	A
Maximum Instantaneous Forward Voltage at 10.0A	0.6	V
Maximum DC Reverse Current Ta=25°C	0.15	mA
at Rated DC Blocking Voltage Ta=125°C	50	mA
Typical Junction Capacitance (Note1)	450	pF
Typical Thermal Resistance R JA (Note 2)	60	°C/W
Operating Temperature Range Tj	— -55 to +150 —	°C
Storage Temperature Range Tstg	-55 to +150	°C

Note : 1.FR-4 PCB, 2oz. Copper.  
2.Polyimide PCB, 2oz. Copper.Cathode pad dimensions 18.8mm x 14.4mm.Anode pad dimensions 5.6mm x 14.4mm.

## RATING AND VCHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

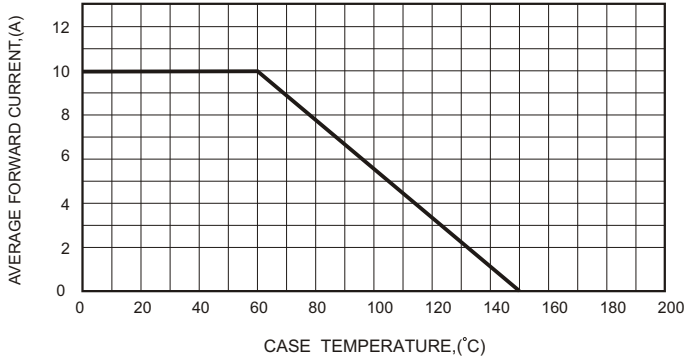


FIG.2-TYPICAL FORWARD CHARACTERISTICS

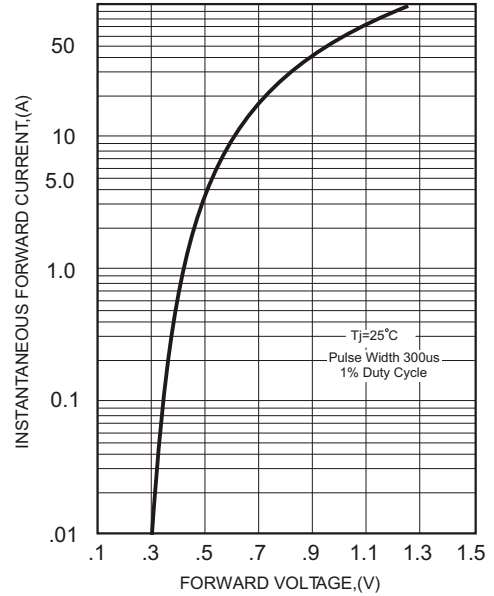


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

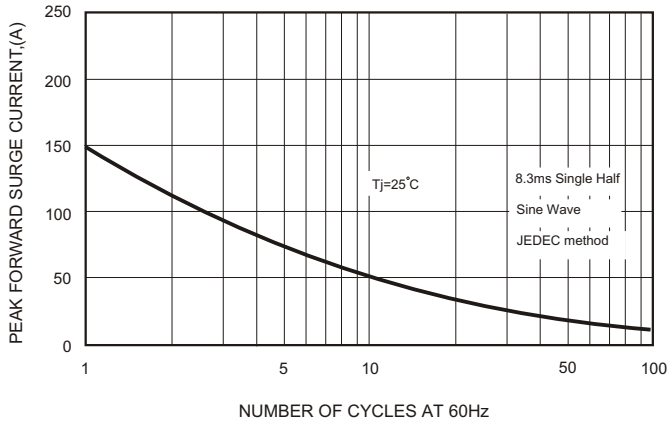


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

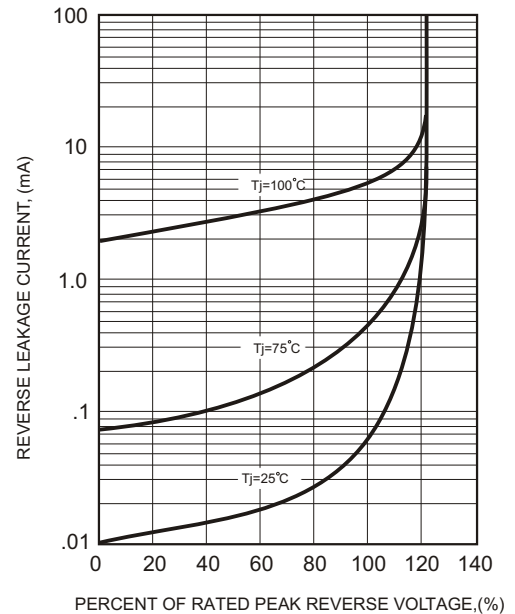
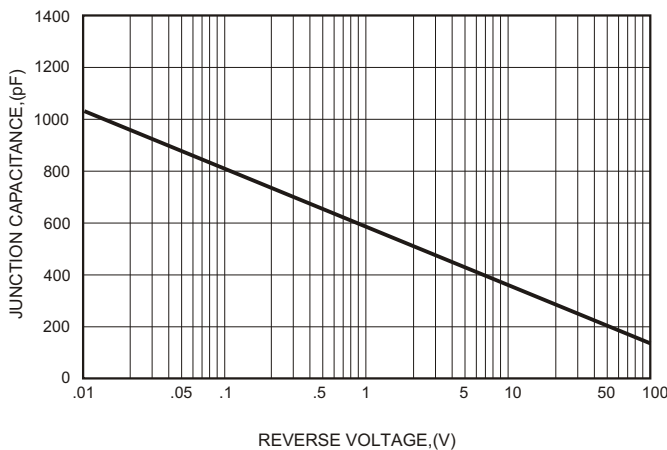
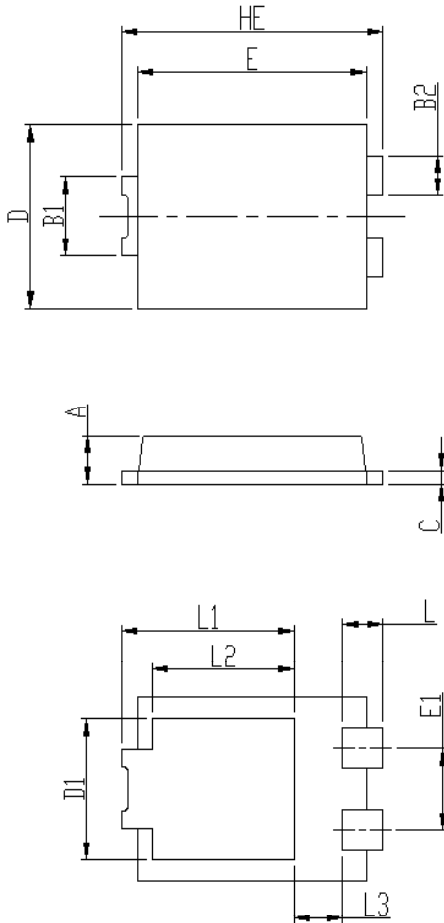


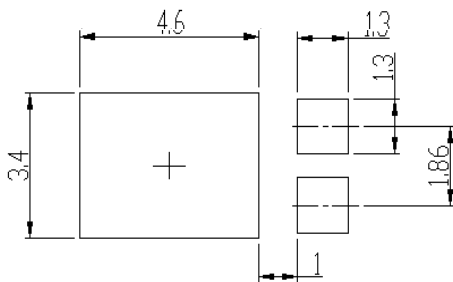
FIG.4-TYPICAL JUNCTION CAPACITANCE





DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	

**T0-277 Suggested Pad Layout**



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05$  mm.
3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
SB1060L	TO-277	5000

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