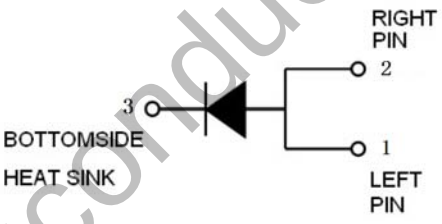
20 AMPS LOW VF SCHOTTKY BARRIER RECTIFIER

SB2045L

TO-277



Features:

- ☐ High current capacity,low forward voltage.
- ☐ Excellent high temperature stability.
- ☐ Low power loss.high efficiency
- ☐ High forward surge capacity.
- ☐ RoHS compliant,and Halogen free.

Absolute Maximum Ratings (Ta=25℃ unless otherwise noted)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Recurrent Peak Reverse Voltage	V_{RRM}	I_R=0.5mA	45	-	-	V
Average Forward Current	$I_{F(AV)}$	V_R=45V@Tj=25℃	-	20	-	A
Peak Forward Surge Current,8.3ms single half sine-wave	I_{FSM}	V_R=45V@Tj=25℃	-	-	200	A
Forward Voltage(Note1)	V_F	IF=10A IF=15A IF=20A	- - -	0.45 0.48 -	- - 0.52	V
Reverse Leakage Current(Note1)	I_R	V_R=45V@Tj=25℃	-	-	0.20	mA
		V_R=45V@Tj=100℃	-	-	20	
Operating Junction Temperature	T_j	-	-	-	150	℃
Storage Temperature Range	Tstg	-	-40	-	150	
Thermal Resistance(Note2)	$R_{th(JA)}$	-	-	31	-	℃/W

Note 1:Pulse test width PW=300usec. 1%duty cycle

Note 2:Polymide PCB,2oz.copper.Cathode pad dimensions 18.8*14.4mm.Anode pad dimensions 5.6*14.1mm

Typical Characteristics

RATING AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

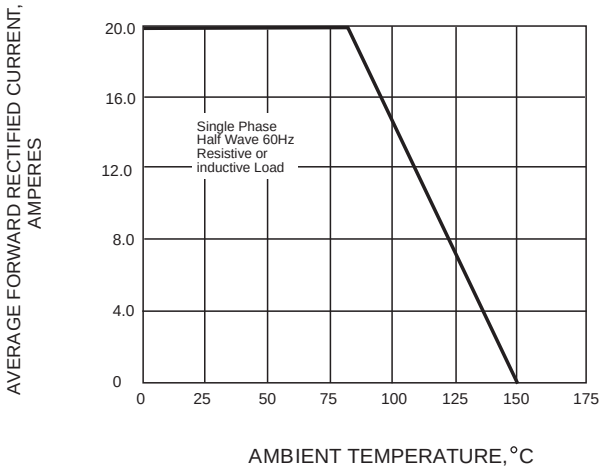


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

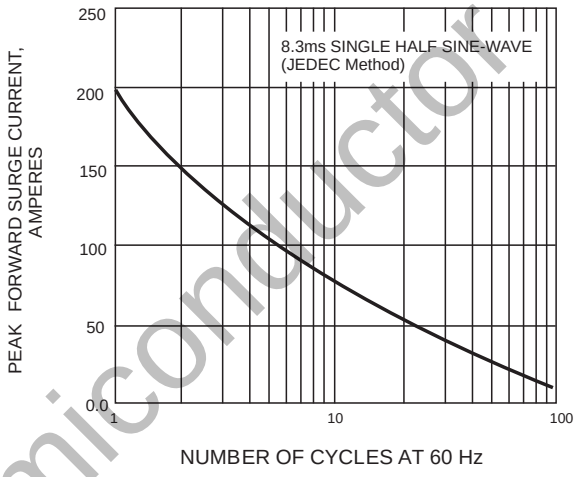


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

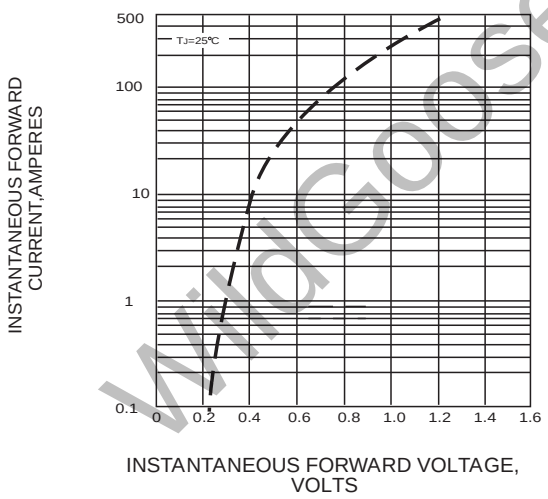
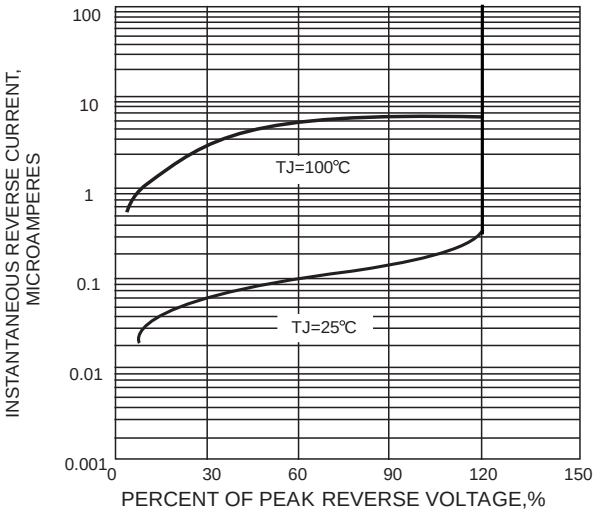


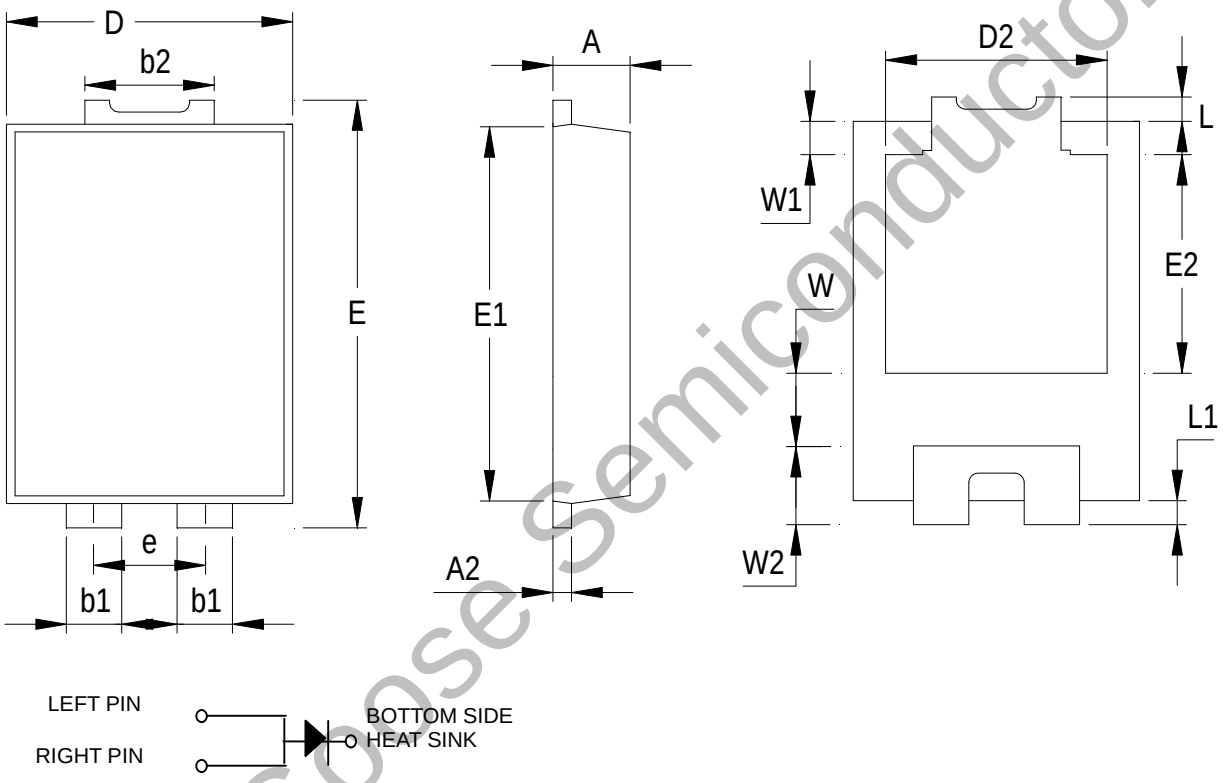
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



Package Dimension

TO-277

Units: mm



NO	Dimensions	NO	Dimensions
A	1.25±0.05	e	1.8Typ
A2	0.30±0.02	E1	6.25±0.05
b1	0.9±0.05	E2	3.6±0.2
b2	2.1±0.05	L/L1	0.4±0.05
D	4.65±0.05	W	1.2±0.2
D2	3.60Typ	W1	0.55±0.15
E	7.05±0.1	W2	1.3±0.2
All Dimensions in mm			