SB2045L THRU SB20100L

Surface Mount Low VF Schottky Rectifiers

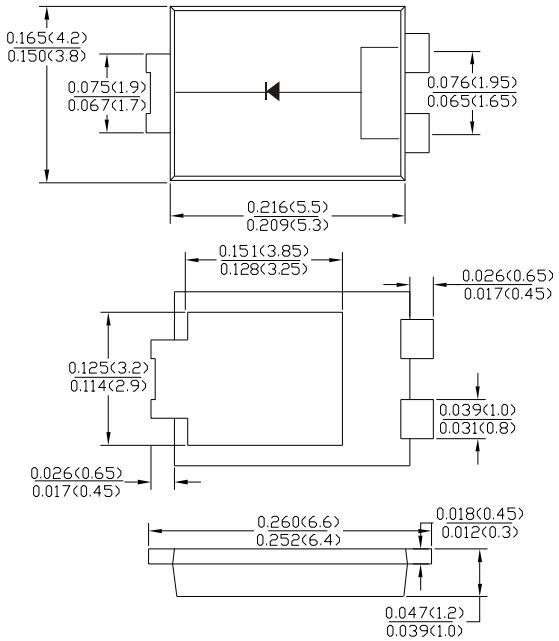
Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss,High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: TO-277, molded plastic
- Terminals:Plated Leads Solderable per MIL-STD-202,Method 208
- Polarity:Cathode Band
- Mounting Position:Any
- Marking:Type Number
- Lead Free:For RoHS/Lead Free Version

TO-277



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @T_A =25℃ unless otherwise specified

Single Phase,half wave,60Hz,resistive or inductive load.For capacitive load,derate current by 20%.

Parameter	Symbol	SB2045L	SB2050L	SB2060L	SB2080L	SB20100L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC blocking voltage	V_{RRM} V_{RWM} V_{DC}	45	50	60	80	100	V
RMS Rectified Voltage	$V_{R(RMS)}$	32	35	42	56	70	V
Average Rectified Output Current (Note1)	IF(AV)	20					A
Non-Repetitive Peak Forward Surge8.3ms Single Half Sine-Wave Superimposed on rated load(JEDEC Method) (Note2)	I_{FSM}	250					A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	259.375					A^2s
Forward Voltage Drop T_A =25 ℃ @IF=20A	V_{FM}	0.55		0.60	0.8		V
Peak Reverse Curent T_A =25℃ At Rated DC Blocking Voltage T_A =100℃	I_R	0.3 15					mA
Typical Thermal Resistance Junctionto Ambient	$R_{\theta JA}$ $R_{\theta JL}$	80 6.3					℃/W
Operating junction temperature range	T_J	-55 to +150					℃
storage temperature range	T_{STG}	-55 to +150					℃

Note:1.Valid Provided that are kept at ambient temperature at a distance of 9.5mm from the case.
2.Fr-4pcb.2oz.Copper,minimum recommend pad layout .18.8mm×14.4.Anode pad dimensions 5.6mm×14.4mm.

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1 - Forward Current Derating Curve

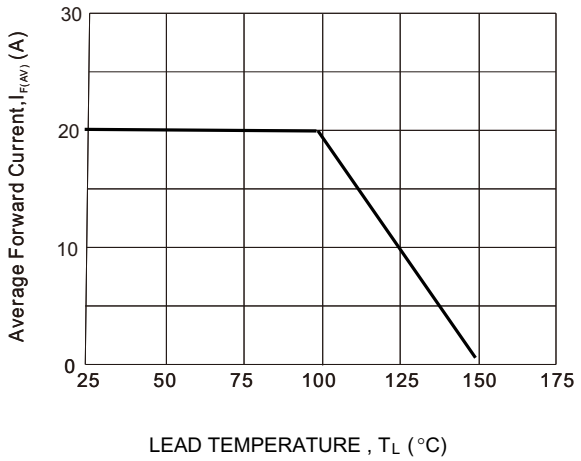


Fig2 : Instantaneous Forward Voltage

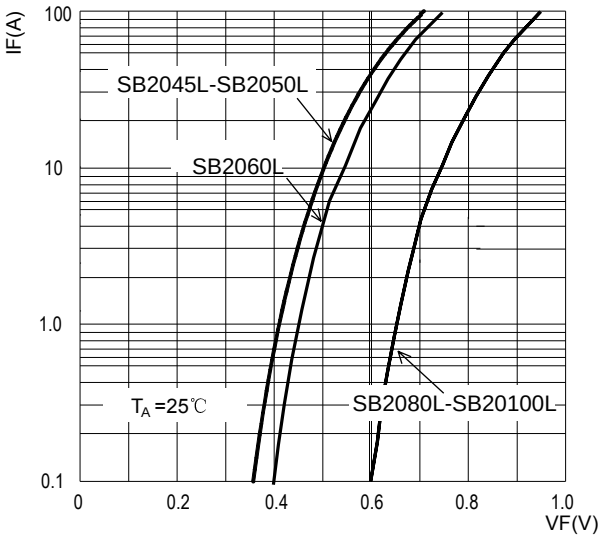


Fig. 3 Maximum Peak Forward Surge Current (per leg)

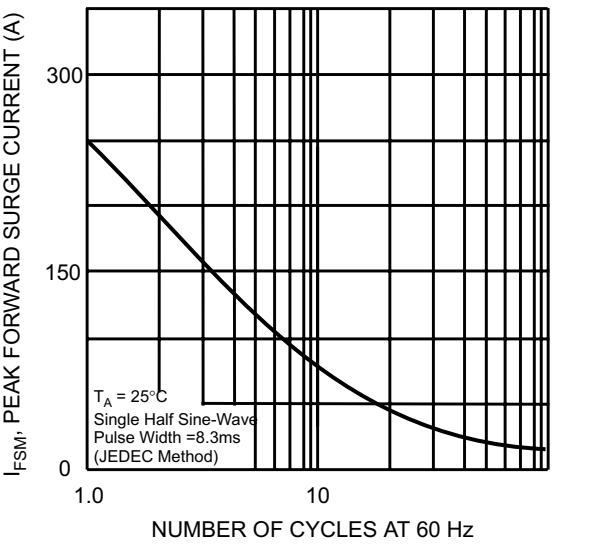


Fig4: Typical Reverse Characteristics

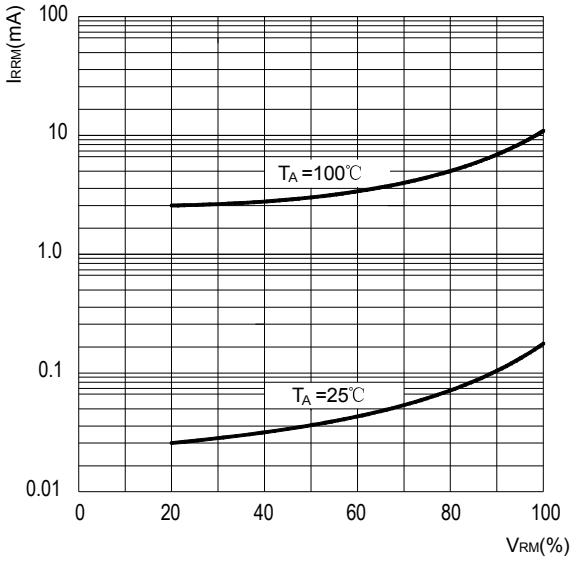


FIG.5 MOUNTING PAD LAYOUT