

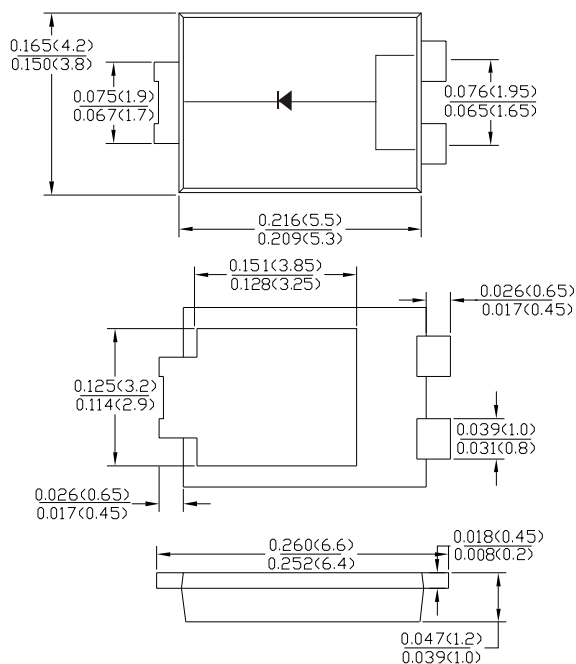
Features

- 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-277B, molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Meet MSL level 1, per J-STD-020, LF Maximum peak of 260 °C
- Polarity: Cathode Band
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

TO-277B



dimensions in inches and (millimeters)

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

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

Parameter	Symbol	SB05T100L		Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100		V
Working Peak Reverse Voltage	V _{RWM}	100		V
DC blocking voltage	V _{DC}	100		V
RMS Rectified Voltage	V _{R(RMS)}	70		V
Average Rectified Output Current (Note1)	I _{F(AV)}	5.0		A
Non-Repetitive Peak Forward Surge Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)	I _{FSM}	150		A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	93.375		A ² s
Forward Voltage Drop T _A =25 °C @IF=1A T _A =25 °C @IF=3A T _A =25 °C @IF=5A	V _{FM}	Typ. 0.40 0.47 0.52	Max. - - 0.60	V
Peak Reverse Current At Rated DC Blocking Voltage T _A =25°C T _A =100°C	I _R	0.3 15		mA
Typical Thermal Resistance Junction to Ambient	R _{θJA} R _{θJL}	80 15		°C/W
Operating junction temperature range	T _J	-55 to +150		°C
storage temperature range	T _{STG}	-55 to +150		°C

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.

Fig.1 - Forward Current Derating Curve

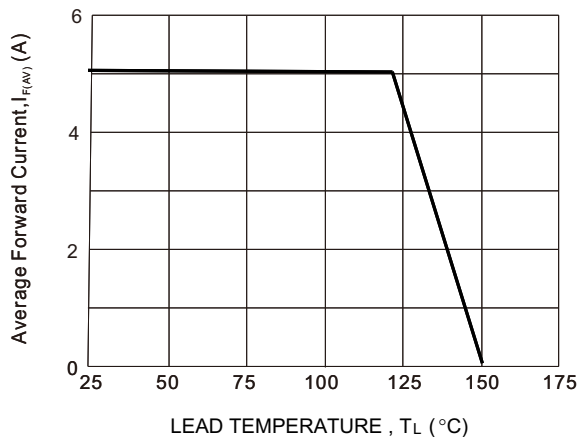


Fig. 2 Typical Forward Characteristics (per leg)

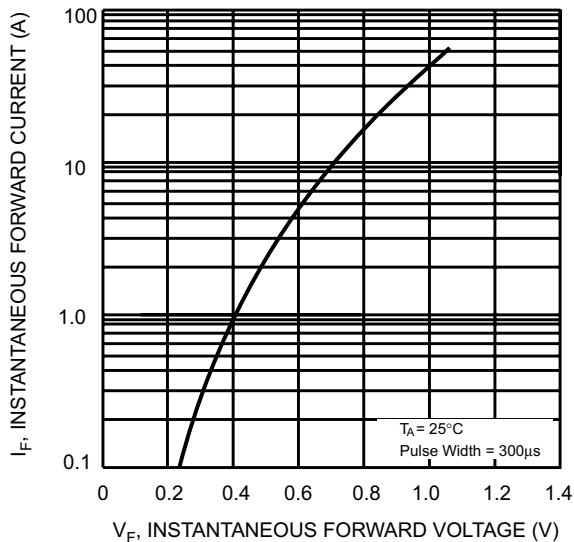


Fig. 3 Maximum Peak Forward Surge Current (per leg)

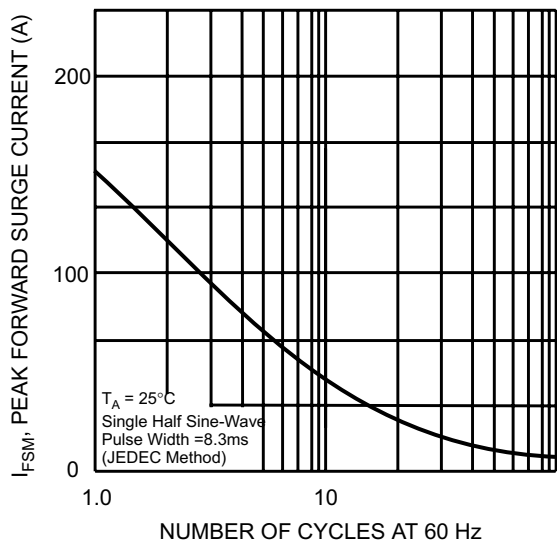


Fig4: Typical Reverse Characteristics

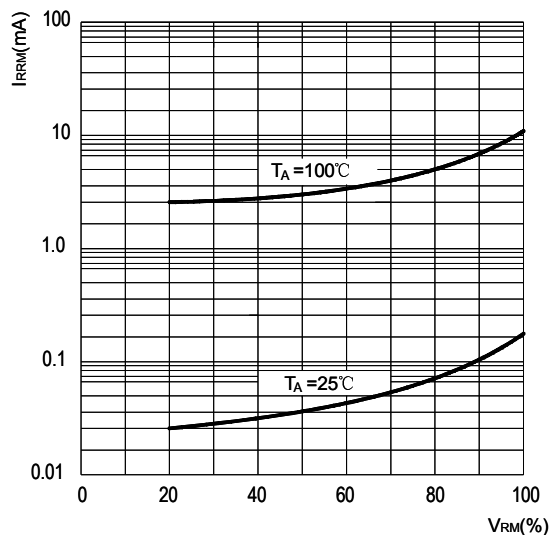


FIG.5 MOUNTING PAD LAYOUT

