



SL10T100

10.0A Surface Mount Schottky Barrier Rectifiers

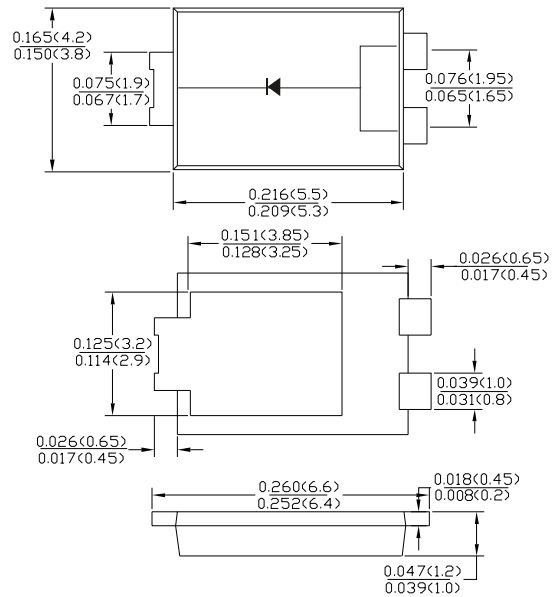
Features

- 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-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	SL10T100		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	I _{F(AV)}	10.0		A
Non-Repetitive Peak Forward Surge @T _j =25 °C	I _{FSM}	200		A
Current 8.3ms Single half sine-wave @T _j =125 °C		160		
Non-Repetitive Peak Forward Surge @T _j =25 °C	I _{FSM}	400		A
Current 1.0ms Single half sine-wave @T _j =125 °C		320		
10000 times of the wave surge current (time width 1ms, time interval 3s)	I _{FSM}	150		A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	166		A ² s
Forward Voltage Drop T _A =25 °C @I _F =1A T _A =25 °C @I _F =5A T _A =25 °C @I _F =10A	V _{FM}	Typ. 0.38 0.50 0.59	Max. - - 0.64	V
Peak Reverse Current At Rated DC Blocking Voltage	I _R	T _A =25°C 0.1 T _A =125°C 15		mA
Typical Junction Capacitance (Note 1)	C _J	1000		pF
Typical Thermal Resistance Junction to Ambient	R _{θJA} R _{θJL}	83 6.3		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150		°C

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.



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Fig.1 - Forward Current Derating Curve

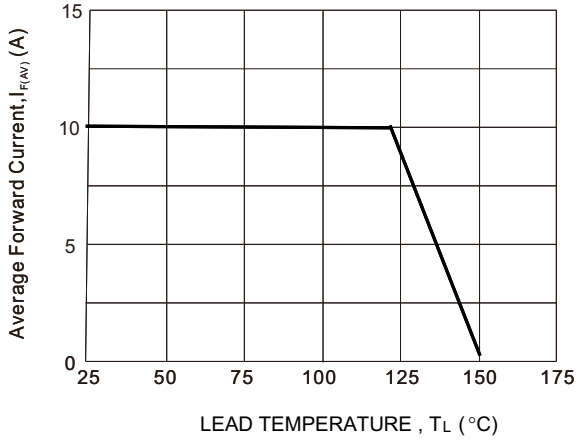


Fig. 2 Typical Forward Characteristics (per leg)

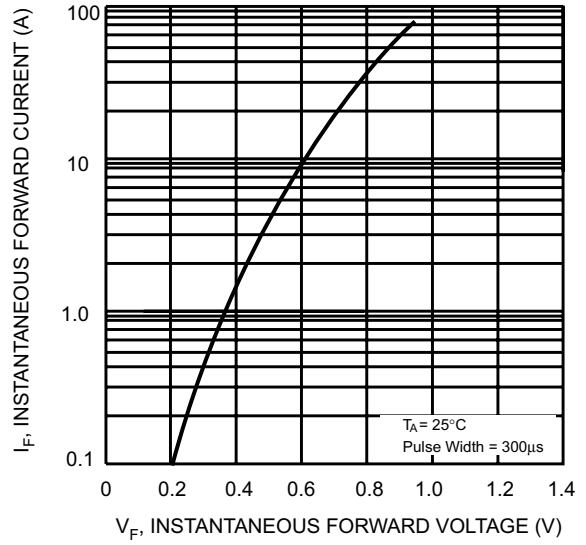


Fig. 3 Maximum Peak Forward Surge Current (per leg)

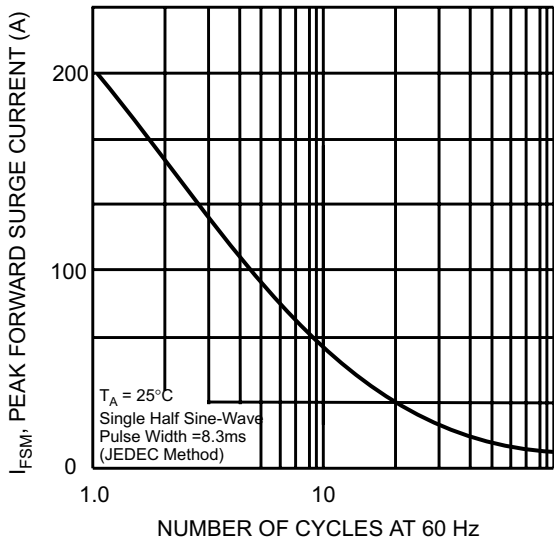


Fig4: Typical Reverse Characteristics

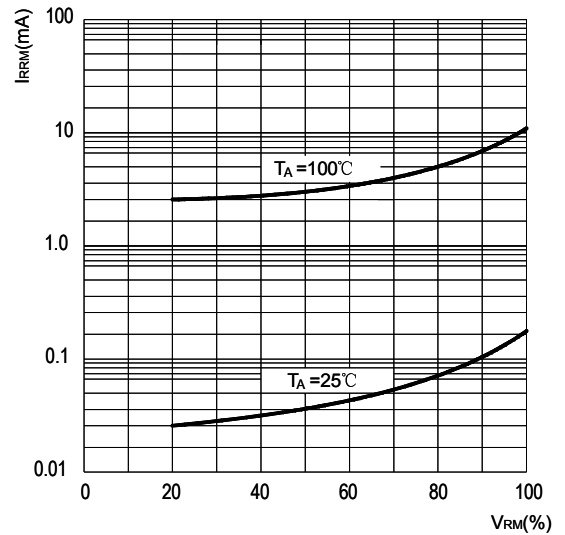
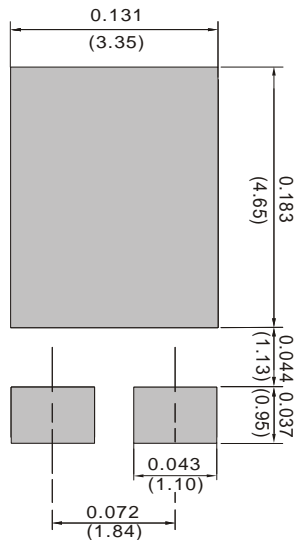


FIG.5 MOUNTING PAD LAYOUT





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