

# SL1045 THRU SL10100

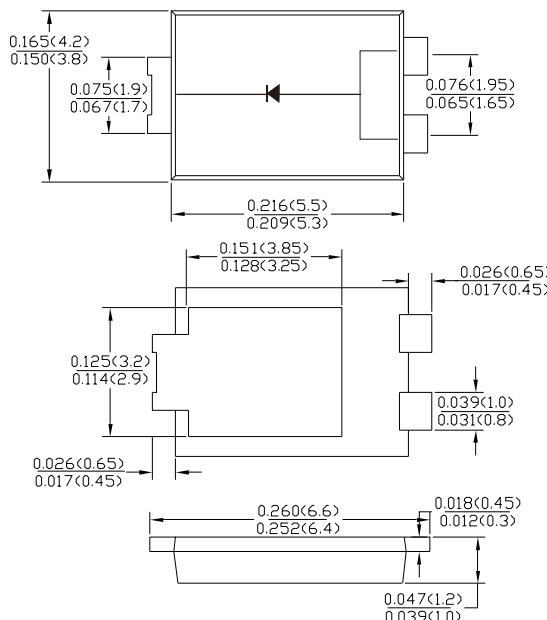
10 0A Surface Mount Schottky Barrier Rectifiers



## 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

## TO-277



## Mechanical Data

- Case: TO-277B, 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

dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

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

Parameter	Symbol	SL1045	SL1050	SL1060	SL1080	SL10100	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>						
Working Peak Reverse Voltage	V <sub>RWM</sub>	45	50	60	80	100	V
DC blocking voltage	V <sub>DC</sub>						
RMS Rectified Voltage	V <sub>R(RMS)</sub>	32	35	42	56	70	V
Average Rectified Output Current (Note1)	I <sub>F(AV)</sub>			10			A
Non-Repetitive Peak Forward Surge 8.3ms							
Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2)	I <sub>FSM</sub>			250			A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t			259.375			A <sup>2</sup> s
Forward Voltage Drop T <sub>A</sub> = 25°C @ I <sub>F</sub> = 10A	V <sub>FM</sub>	0.45	0.47	0.50	0.70		V
Peak Reverse Current T <sub>A</sub> = 25°C At Rated DC Blocking Voltage T <sub>A</sub> = 100°C	I <sub>R</sub>			0.3 15			mA
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub> R <sub>θJL</sub>			80 10			°C/W
Operating junction temperature range	T <sub>J</sub>			-55 to +150			°C
storage temperature range	T <sub>STG</sub>			-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.

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Fig.1 - Forward Current Derating Curve

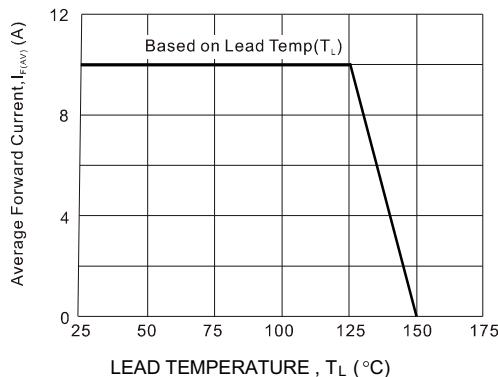


Fig2 : Instantaneous Forward Voltage

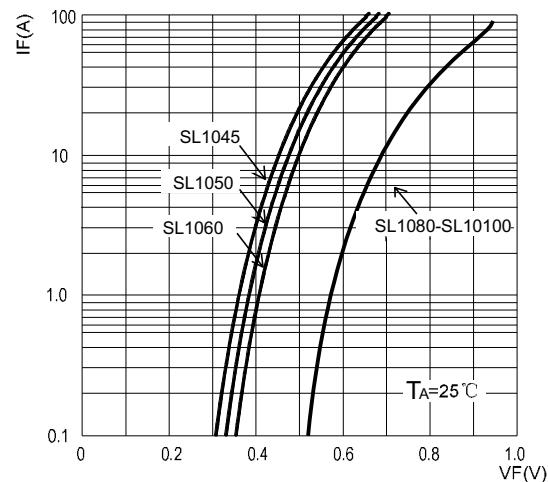


Fig3: Surge Forward Current Capability

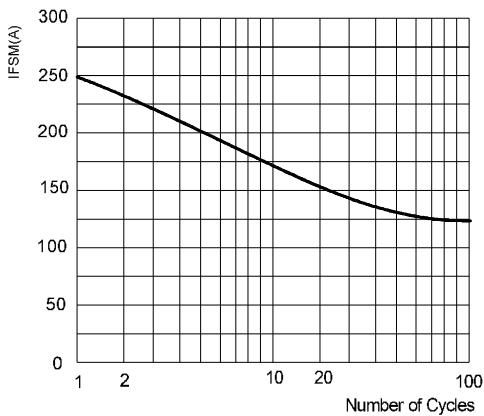


Fig4: Typical Reverse Characteristics

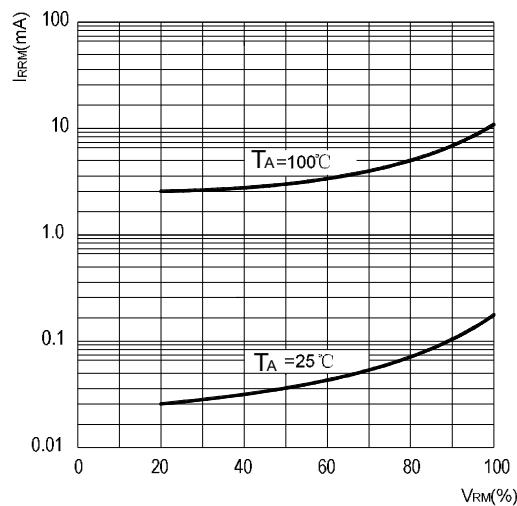


FIG.5 MOUNTING PAD LAYOUT

