



# SR1045L THRU SR10100L

## 10.0A Surface Mount Schottky Barrier Rectifiers

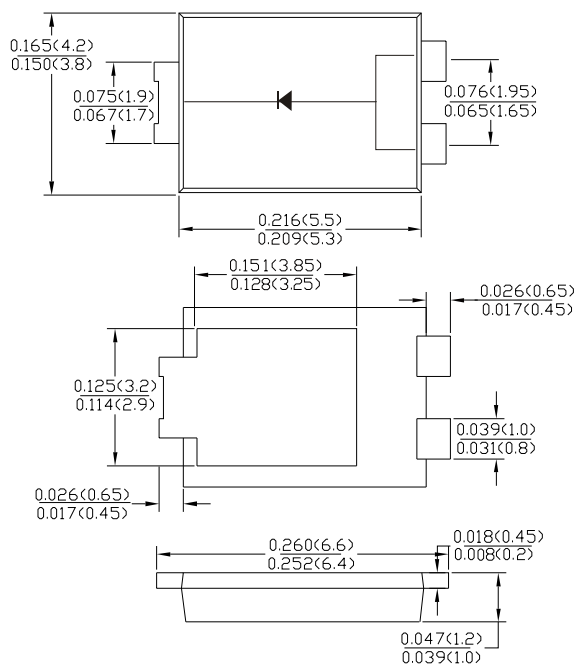
### Features

- 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<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	SR1045L	SR1050L	SR1060L	SR1080L	SR10100L	Unit	
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>						V	
Working Peak Reverse Voltage	V <sub>RWM</sub>	45	50	60	80	100	V	
DC blocking voltage	V <sub>DC</sub>						V	
RMS Rectified Voltage	V <sub>R(RMS)</sub>	28	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>	275						A
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	I <sup>2</sup> t	313.844						A <sup>2</sup> s
Forward Voltage Drop T <sub>A</sub> =25°C @ I <sub>F</sub> =10A	V <sub>FM</sub>	0.44	0.45	0.48	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 15						°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-4 pcb. 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

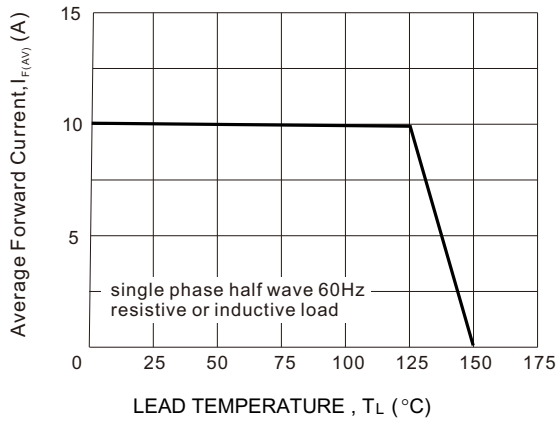


Fig.2 : Instantaneous Forward Voltage

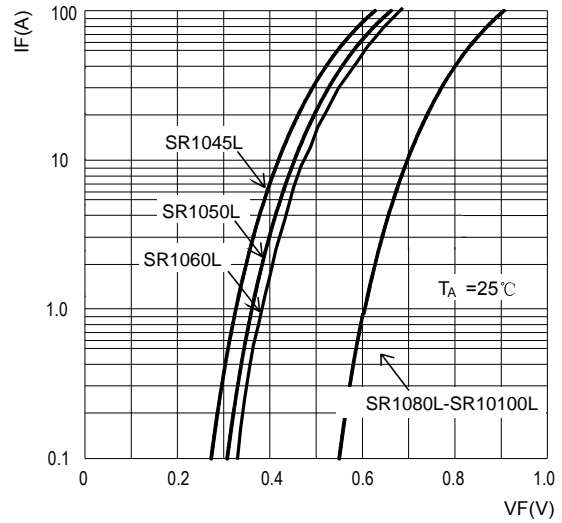


Fig.3: Surge Forward Current Capacity

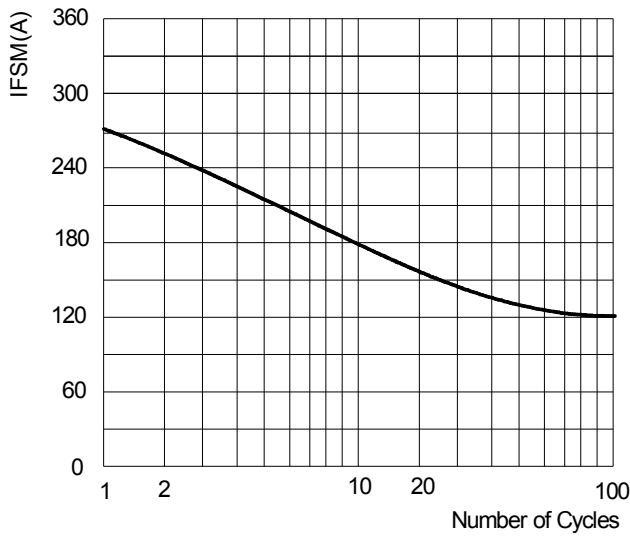


Fig.4: Typical Reverse Characteristics

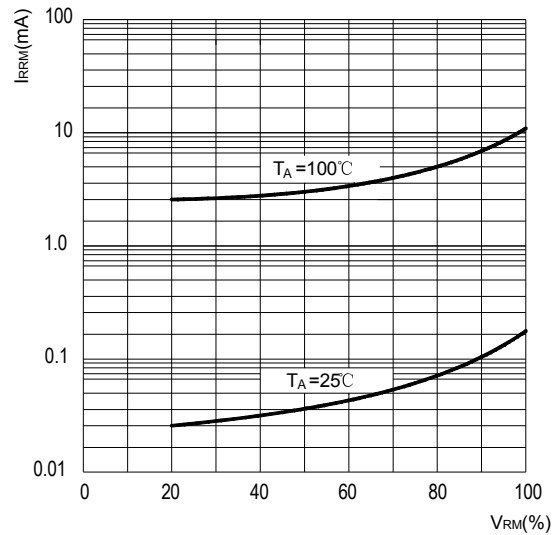
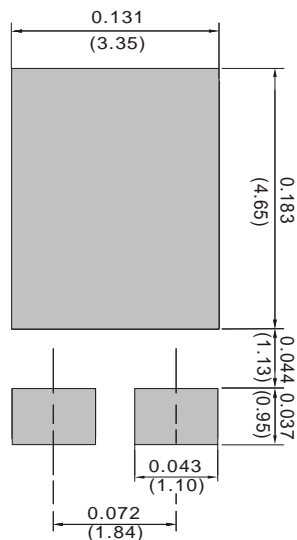


FIG.5 MOUNTING PAD LAYOUT





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