

SR1545L THRU SR1580L

15A Surface Mount Schottky Barrier Rectifiers

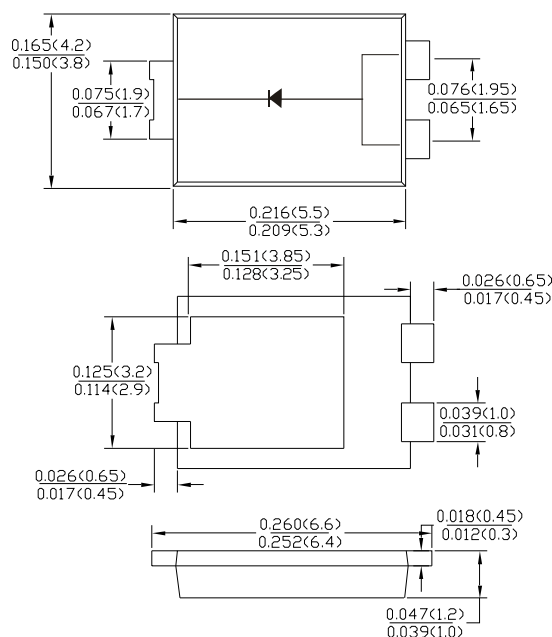


- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Low Power Loss, High Efficiency
- Excellent High Temperature Stability
- Plastic material-UL flammability 94V-0

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)

Downloaded from alldatasheet.com

Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

| Parameter | Symbol | SR1545L | SR1550L | SR1560L | SR1580L | Unit |
|---|------------------------------------|-------------|---------|---------|---------|---------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | V |
| Working Peak Reverse Voltage | V_{RWM} | 45 | 50 | 60 | 80 | V |
| DC blocking voltage | V_{DC} | | | | | V |
| RMS Rectified Voltage | $V_{R(RMS)}$ | 28 | 35 | 42 | 56 | V |
| Average Rectified Output Current (Note1) | I_o | 15 | | | | A |
| Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method) (Note2) | I_{FSM} | 275 | | | | A |
| Forward Voltage Drop $T_A = 25^\circ\text{C}$ @ $I_F = 15\text{A}$ | V_{FM} | 0.45 | 0.48 | 0.55 | 0.75 | V |
| Peak Reverse Current $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$ | I_R | 0.3 15 | | | | mA |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ $R_{\theta JL}$ | 80 15 | | | | $^\circ\text{C}/\text{W}$ |
| Operating junction temperature range | T_J | -55 to +150 | | | | $^\circ\text{C}$ |
| storage temperature range | T_{STG} | -55 to +150 | | | | $^\circ\text{C}$ |

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 x 14.4. Anode pad dimensions 5.6mm x 14.4mm.

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Fig.1 - Forward Current Derating Curve

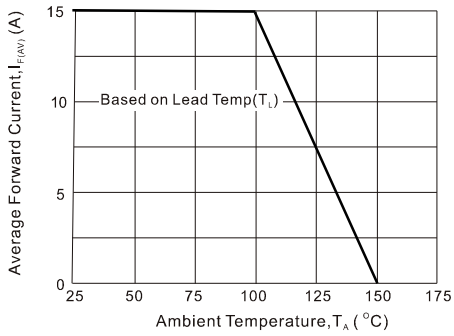


Fig2 : Instantaneous Forward Voltage

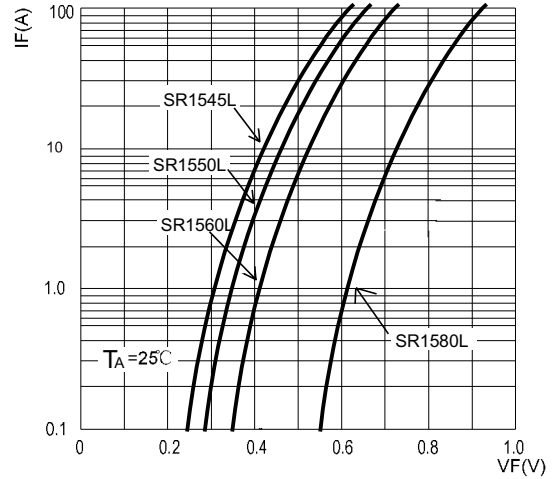


Fig3: Surge Forward Current Capability

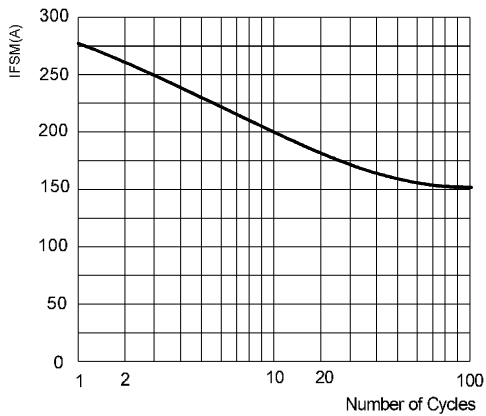


Fig4: Typical Reverse Characteristics

