# SR1045L THRU SR10100L

**10 0A Surface Mount Schottky Barrier Rectifiers**

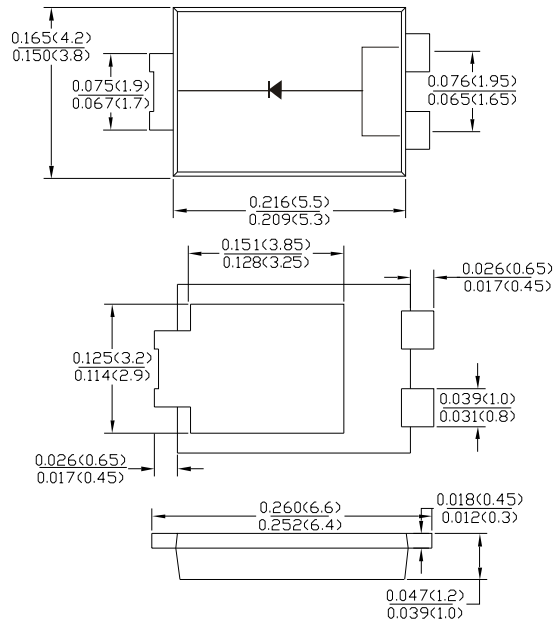
## Features

- Schottky Barrier Chip
- High Thermal Reliability
- Patented Super Barrier Rectifier Technology
- High Forward Surge Capability
- Ultra Fow 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
- Polarity:Cathode Band
- Mounting Position:Any
- Marking:Type Number
- Lead Free:For RoHS/Lead Free Version

## TO-277




dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics @$T_A$ =25℃ 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<br>Working Peak Reverse Voltage<br>DC blocking voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{DC}$ | 45 | 50 | 60 | 80 | 100 | V |
| RMS Rectified Voltage | $V_{R(RMS)}$ | 28 | 35 | 42 | 56 | 70 | V |
| Average Rectified Output Current (Note1) | IF(AV) | 10 | | | | | A |
| Non-Repetitive Peak Forward Surge8.3ms<br>Single Half Sine-Wave Superimposed on rated<br>load(JEDEC Method) (Note2) | IFSM | 275 | | | | | A |
| $I^2t$ Rating for Fusing (t < 8.3ms) | $I^2t$ | 313.844 | | | | | $A^2s$ |
| Forward Voltage Drop $T_A$ =25℃ @ IF=10A | VFM | 0.42 | 0.45 | 0.50 | 0.70 | | V |
| Peak Reverse Curent $T_A$ =25℃<br>At Rated DC Blocking Voltage $T_A$ =100℃ | IR | 0.3<br>15 | | | | | mA |
| Typical Thermal Resistance<br>Junctionto Ambient | RθJA<br>RθJL | 80<br>15 | | | | | ℃/W |
| Operating junction temperature range | TJ | -55 to +150 | | | | | ℃ |
| storage temperature range | TSTG | -55 to +150 | | | | | ℃ |

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

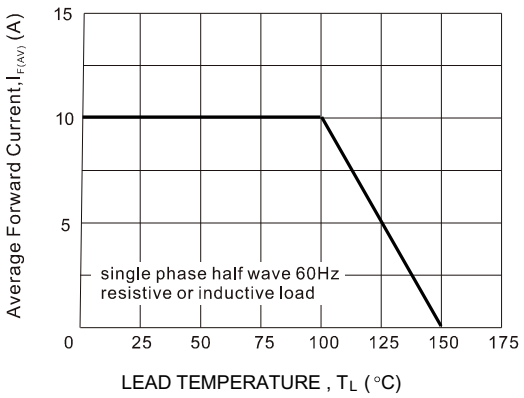


Fig.2 :Instantaneous Forward Voltage

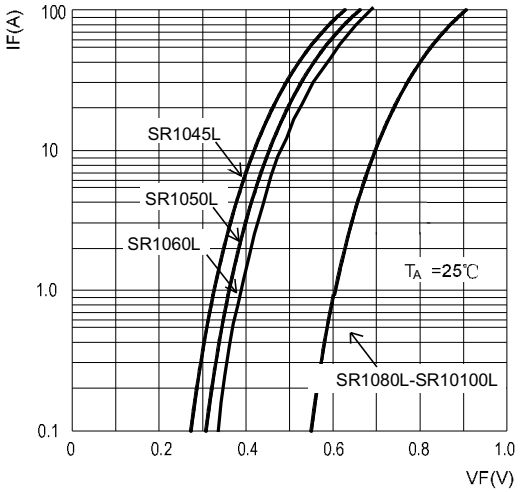


Fig.3: Surge Forward Current Capadility

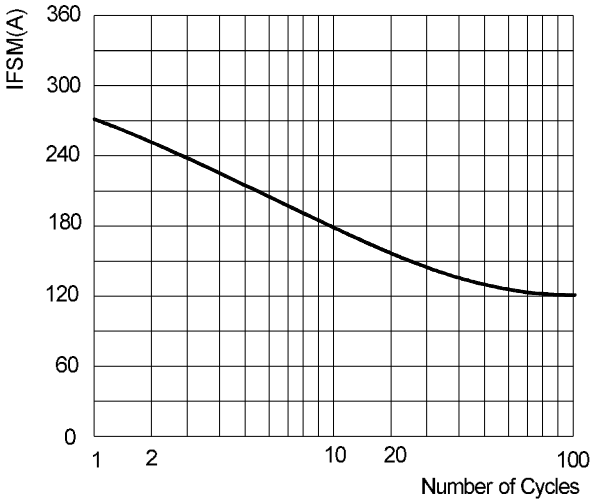


Fig.4: Typical Reverse Characteristics

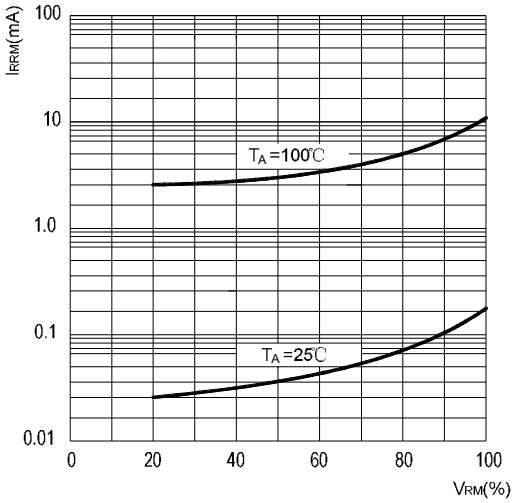


FIG.5 MOUNTING PAD LAYOUT