



# SR0540L THRU SR05200L

Reverse Voltage - 40 to 200 Volts Forward Current - 5.0 Ampere

## 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

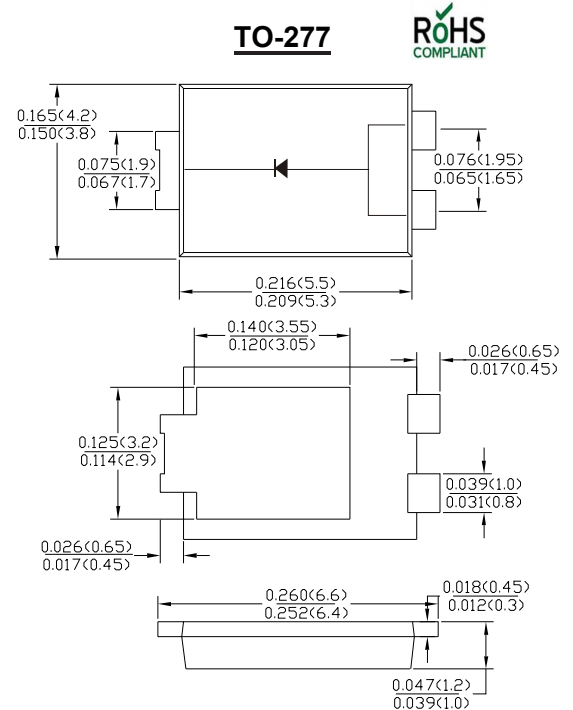
**Case** : JEDEC TO-277 Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any

**Weight** : 0.003 ounce, 0.0092 grams



Dimensions in inches and (millimeters)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter  | SYMBOLS         | SR                      | SR             | SR             | SR             | SR                        | SR              | SR              | SR              | UNITS |
|--|-----------------|-------------------------|----------------|----------------|----------------|---------------------------|-----------------|-----------------|-----------------|-------|
|  |                 | 0540L                   | 0545L          | 0550L          | 0560L          | 0580L                     | 05100L          | 05150L          | 05200L          |       |
| Marking Code   |                 | MDD<br>SR0540L          | MDD<br>SR0545L | MDD<br>SR0550L | MDD<br>SR0560L | MDD<br>SR0580L            | MDD<br>SR05100L | MDD<br>SR05150L | MDD<br>SR05200L |       |
| Maximum repetitive peak reverse voltage  | $V_{RMM}$       | 40                      | 45             | 50             | 60             | 80                        | 100             | 150             | 500             | V     |
| Maximum RMS voltage  | $V_{RMS}$       | 28                      | 32             | 35             | 42             | 56                        | 70              | 105             | 40              | V     |
| Maximum DC blocking voltage  | $V_{DC}$        | 40                      | 45             | 50             | 60             | 80                        | 100             | 150             | 200             | V     |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length (see fig.1) (Note1)                    | $I_{(AV)}$      | 5.0                     |                |                |                |                           |                 |                 |                 | A     |
| Peak forward surge current 8.3ms single half<br>sine-wave superimposed on rated load (JEDEC<br>Method) (Note2) | $I_{FSM}$       | 120                     |                |                |                |                           |                 |                 |                 | A     |
| Maximum instantaneous forward voltage at 10.0A   | $V_F$           | 0.55                    |                | 0.70           |                | 0.85                      |                 | 0.90            | 0.92            | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage   | $I_R$           | $T_A=25^\circ C$<br>0.3 |                |                |                | $T_A=100^\circ C$<br>0.05 |                 |                 |                 | mA    |
|  |                 | 15.0                    |                |                |                | 5                         |                 |                 |                 |       |
| Typical thermal resistance   | $R_{\theta JA}$ | 80.0                    |                |                |                |                           |                 |                 |                 | °C/W  |
| Operating junction and storage   | $T_J$           | - 5 5 t o + 1 5 0       |                |                |                |                           |                 |                 |                 | °C    |
| Storage temperature range  | $T_{STG}$       | -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.



# SR0540L THRU SR05200L

Reverse Voltage - 40 to 200 Volts Forward Current - 5.0 Ampere

## Ratings And Characteristic Curves

Fig.1 - Forward Current Derating Curve

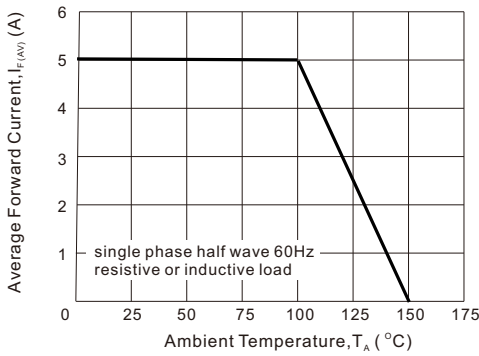


Fig2 : Instantaneous Forward Voltage

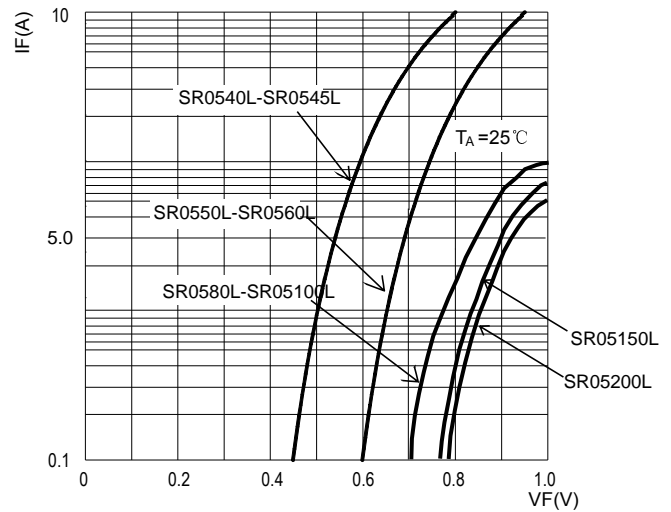


Fig3: Surge Forward Current Capadility

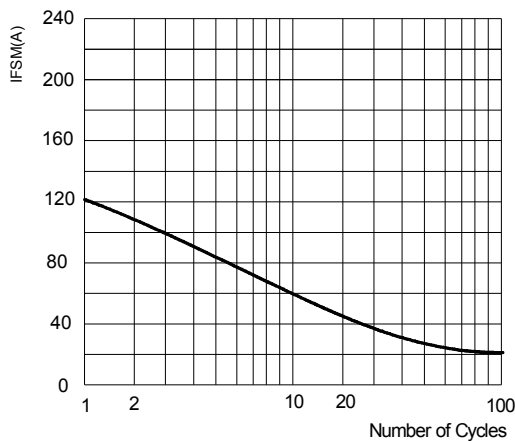
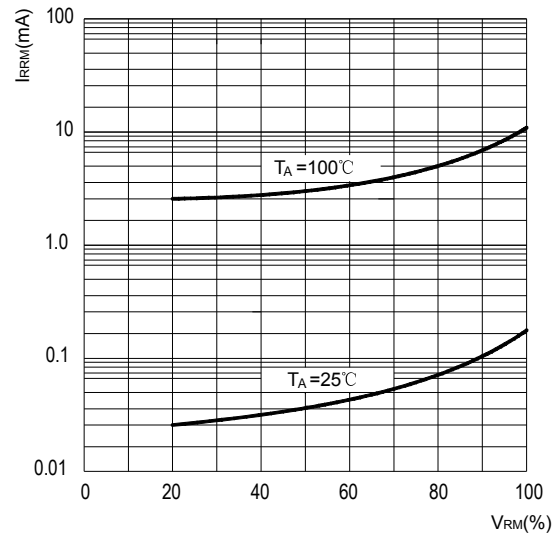


Fig4: Typical Reverse Characteristics



The curve above is for reference only.