

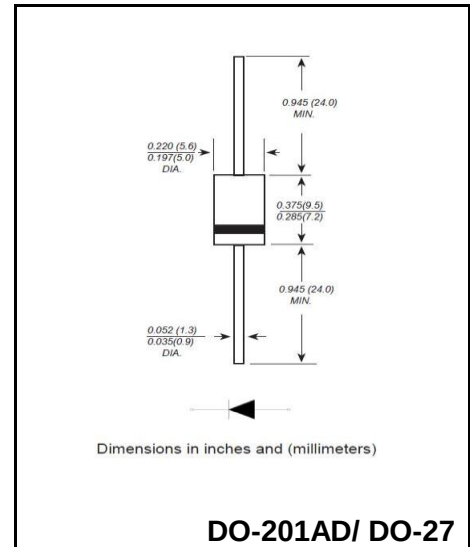
## Schottky Barrier Rectifiers

**Reverse Voltage - 20 to 200 V**

**Forward Current - 5 A**

### FEATURES

- ◆ Guardring for overvoltage protection
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed  
250°C /10 seconds at terminals
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



### MECHANICAL DATA

- ◆ Case: DO-201AD/ DO-27
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.98 g /0.0345oz

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

| Parameter                                                                                                                       | Symbols         | SR520      | SR540      | SR560 | SR580 | SR5100 | SR5150 | SR5200 | Units                |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|------------|-------|-------|--------|--------|--------|----------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                                         | $V_{RRM}$       | 20         | 40         | 60    | 80    | 100    | 150    | 200    | V                    |
| Maximum RMS voltage                                                                                                             | $V_{RMS}$       | 14         | 28         | 42    | 56    | 70     | 105    | 140    | V                    |
| Maximum DC Blocking Voltage                                                                                                     | $V_{DC}$        | 20         | 40         | 60    | 80    | 100    | 150    | 200    | V                    |
| Maximum Average Forward Rectified Current at $T_c = 100\text{ }^{\circ}\text{C}$                                                | $I_{F(AV)}$     | 5.0        |            |       |       |        |        |        | A                    |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load                                              | $I_{FSM}$       | 120.0      |            |       |       |        |        |        | A                    |
| Maximum Instantaneous Forward Voltage at 5.0A                                                                                   | $V_F$           | 0.55       | 0.70       | 0.85  | 0.95  | V      |        |        |                      |
| Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$<br>at Rated DC Blocking Voltage $T_a=125\text{ }^{\circ}\text{C}$ | $I_R$           | 0.5<br>50  | 0.05<br>10 |       |       |        | mA     |        |                      |
| Typical Thermal Resistance                                                                                                      | $R_{\theta JA}$ | 55         |            |       |       |        |        |        | $^{\circ}\text{C/W}$ |
| Operating junction temperature range                                                                                            | $T_j$           | -55 ~ +150 |            |       |       |        |        |        | $^{\circ}\text{C}$   |
| Storage Temperature Range                                                                                                       | $T_{stg}$       | -55 ~ +150 |            |       |       |        |        |        | $^{\circ}\text{C}$   |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

## Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

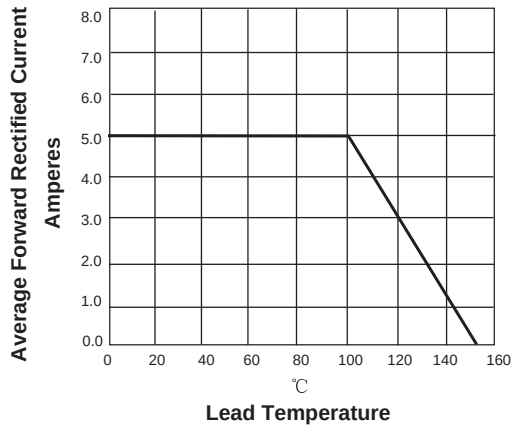


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

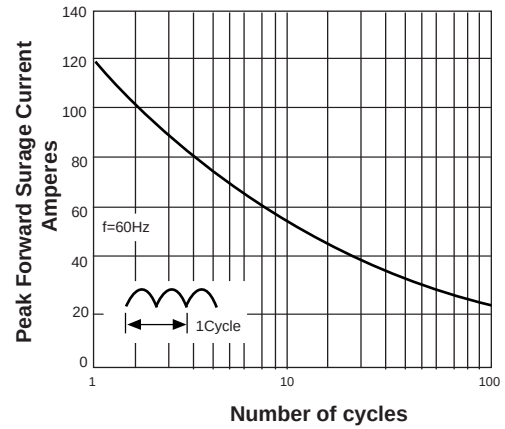


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

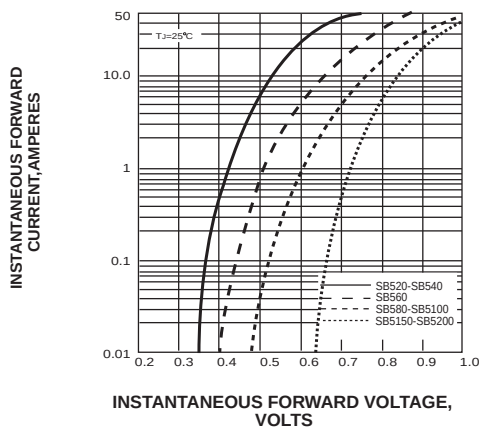
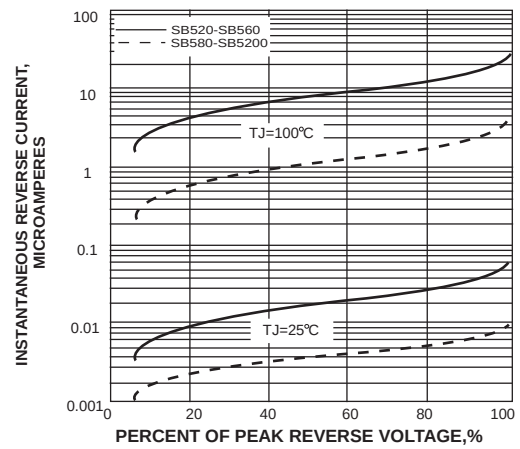
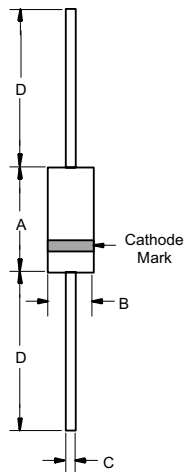


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



**Package Outline DO-201AD(DO-27)**



| DIMENSIONS |        |      |       |      |      |
|------------|--------|------|-------|------|------|
| DIM        | INCHES |      | MM    |      | NOTE |
|            | MIN    | MAX  | MIN   | MAX  |      |
| A          | ---    | .370 | ---   | 9.50 |      |
| B          | ---    | .250 | ---   | 6.40 |      |
| C          | .048   | .052 | 1.20  | 1.30 |      |
| D          | 1.000  | ---  | 25.40 | ---  |      |

**Summary of Packing Options**

| Package         | Packing Description | Packing Quantity | Industry Standard |
|-----------------|---------------------|------------------|-------------------|
| DO-201AD(DO-27) | BOX                 | 250/1000/1250    | EIA-481-1         |