

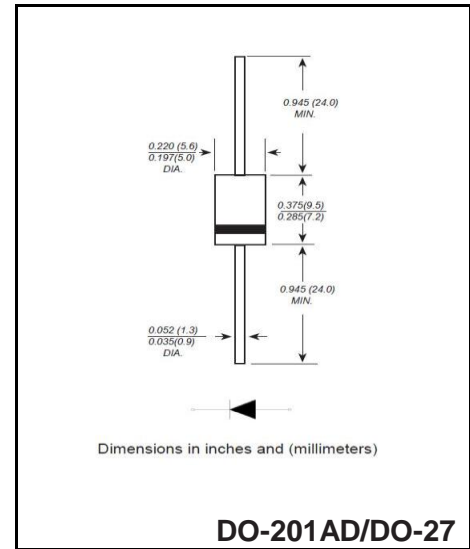
Super Fast Silicon Rectifiers

Reverse Voltage - 100 to 600 V

Forward Current - 6 A

FEATURES

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Glass Passivated Chip Junction
- ◆ Ideal for automated placement
- ◆ 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: 0.98g / 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 | SF62G | SF63G | SF64G | SF66G-M | SF67G | SF68G | Units |
|--|-----------------|------------|-------|-------|---------|-------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 100 | 150 | 200 | 400 | 500 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 70 | 105 | 140 | 280 | 350 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 100 | 150 | 200 | 400 | 500 | 600 | V |
| Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$ | $I_{F(AV)}$ | 6.0 | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load | I_{FSM} | 220.0 | | | | | | A |
| Maximum Instantaneous Forward Voltage at 5.0A | V_F | 0.95 | | 1.25 | | 1.65 | | V |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$ | I_R | 10 500 | | | | | | μA |
| Maximum reverse recovery time ^(Note 1) | T_{rr} | 35 | | | | | | nS |
| Typical Junction Capacitance ^(Note 2) | C_j | 78.0 | | | | | | pF |
| Typical Thermal Resistance | $R_{\theta JA}$ | 45.0 | | | | | | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | | $^\circ\text{C}$ |

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

(2) Reverse recovery time test condition: $I_F=0.5A$ $I_R=1.0A$ $I_{rr}=0.25A$

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

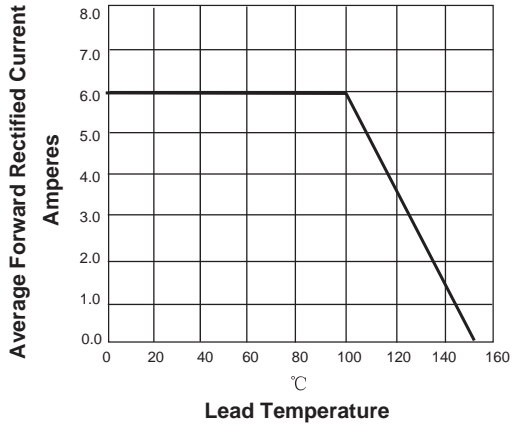


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

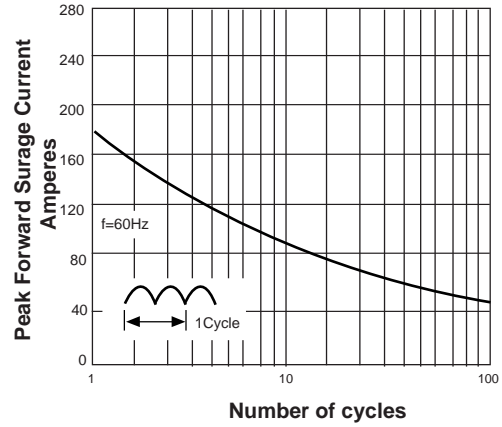


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

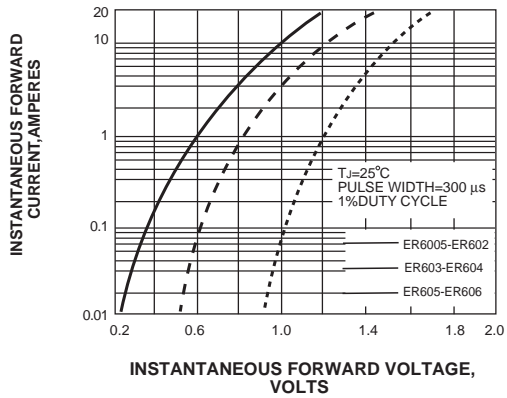
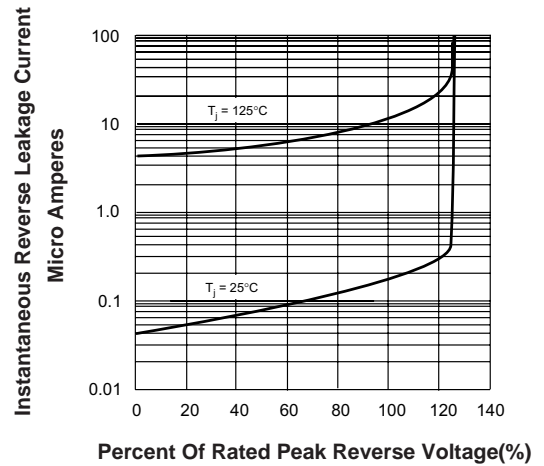
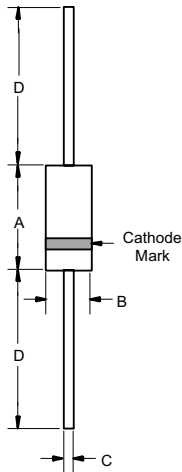


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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 |