

**Trench MOS Barrier Schottky Rectifier**

**Reverse Voltage - 300 V**

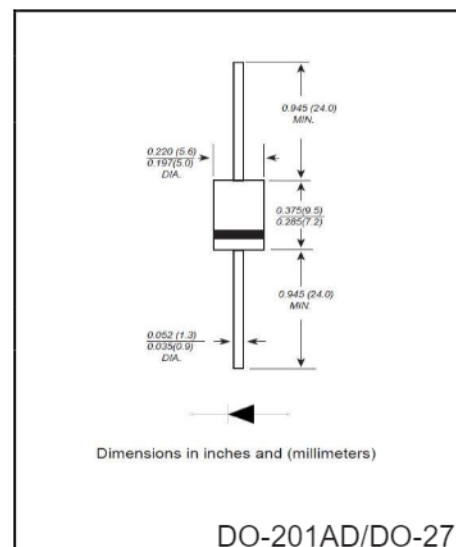
**Forward Current - 5 A**

**FEATURES**

- ♦ Advanced trench technology
- ♦ Low forward voltage drop
- ♦ Low power losses
- ♦ High efficiency operation
- ♦ 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 (Per Leg) at Ta=25°C unless otherwise specified**

| Parameter                                                                                    | Symbols   | Value           | Units |
|----------------------------------------------------------------------------------------------|-----------|-----------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                      | $V_{RRM}$ | 300             | V     |
| Maximum RMS voltage                                                                          | $V_{RMS}$ | 300             | V     |
| Maximum DC Blocking Voltage                                                                  | $V_{DC}$  | 300             | V     |
| Maximum Average Forward Rectified Current                                                    | Per diode | $I_{F(AV)}$     | 5     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave superimposed on rated load per diode | $I_{FSM}$ | 100             | A     |
| Operating Temperature Range                                                                  | $T_J$     | -55 ~ +150      | °C    |
| Storage Temperature Range                                                                    | $T_{STG}$ | -55 ~ +150      | °C    |
| Typical Thermal Resistance Per diode(munted on FR-4 PCB)                                     | DO-27     | $R_{\theta JC}$ | 22    |
|                                                                                              |           |                 | °C/W  |

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

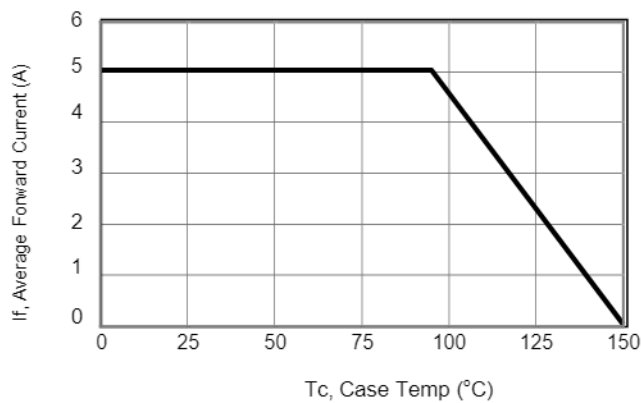
**Electrical Characteristics (Per Leg) unless otherwise specified**

| Characteristics                                                  |          | Symbols        | Value |      | Units |
|------------------------------------------------------------------|----------|----------------|-------|------|-------|
| Forward Voltage Drop(Note2)                                      |          | V <sub>F</sub> | Typ   | Max  | V     |
| at I <sub>F</sub> =5A Instantaneous forward voltage per diode    | TA=25°C  |                | -     | 0.85 |       |
|                                                                  | TA=125°C |                | -     | 0.78 |       |
| Instantaneous reverse current per diode at rated reverse voltage | TA=25°C  | I <sub>R</sub> | 1     | 5    | uA    |
|                                                                  | TA=125°C |                | -     | 80   | mA    |

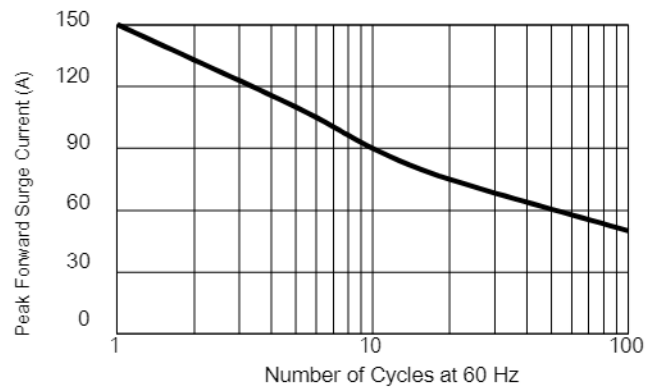
Note2: (1)Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

(2) Pulse test: Pulse width  $\leq 40$  ms

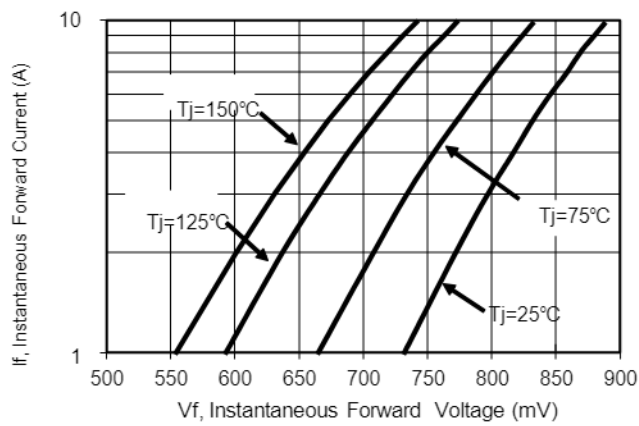
## RATINGS AND CHARACTERISTIC CURVES



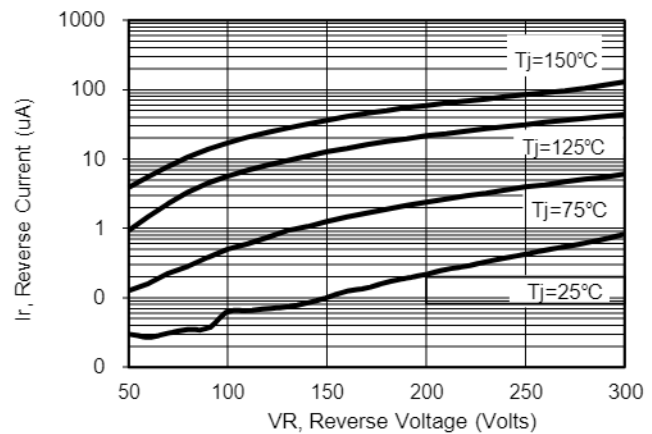
**Current Derating, Case**



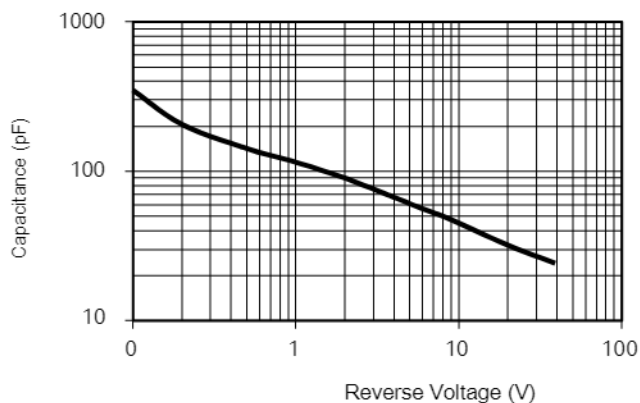
**Maximum Repetitive Surge Current**



**Typical Forward Voltage**

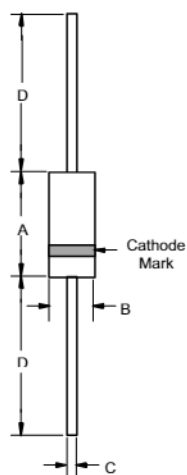


**Typical Reverse Current**



**Typical Junction Capacitance**

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         |