

**0.5/0.2Amp High Voltage Rectifier**  
**Reverse Voltage - 1200 to 5000 V**  
**Forward Current – 0.5/0.2A**



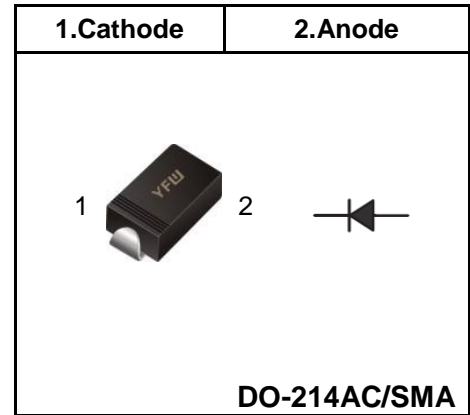
**FEATURES**

- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low profile package
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

**MECHANICAL DATA**

- ◆ Case: DO-214AC/SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.07g / 0.002oz

**Pinning**



**Absolute Maximum Ratings and 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         | R1200         | R1500 | R1800 | R2000 | R2500 | R3000 | R3500 | R4000 | R5000 | Units              |
|---|-----------------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 1200          | 1500  | 1800  | 2000  | 2500  | 3000  | 3500  | 4000  | 5000  | V                  |
| Maximum RMS voltage   | $V_{RMS}$       | 840           | 1050  | 1260  | 1400  | 1750  | 2100  | 3450  | 2800  | 3500  | V                  |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 1200          | 1500  | 1800  | 2000  | 2500  | 3000  | 3500  | 4000  | 5000  | V                  |
| Maximum Average Forward Rectified Current at $T_c = 125\text{ }^\circ\text{C}$  | $I_{F(AV)}$     | 0.5           |       |       | 0.2   |       |       |       |       | A     |                    |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load  | $I_{FSM}$       | 30.0          |       |       |       |       |       |       |       |       | A                  |
| Maximum Instantaneous Forward Voltage at 0.5 A  | $V_F$           | 2.0           |       | 3.0   |       | 4.0   |       | 5.0   |       | V     |                    |
| Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$<br>at Rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$ | $I_R$           | 10.0<br>200.0 |       |       |       |       |       |       |       |       | $\mu\text{A}$      |
| Typical Junction Capacitance <sup>(1)</sup>   | $C_j$           | 15            |       |       |       |       |       |       |       |       | pF                 |
| Typical Thermal Resistance <sup>(2)</sup>   | $R_{\theta JA}$ | 50            |       |       |       |       |       |       |       |       | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_j, T_{stg}$  | -55 ~ +150    |       |       |       |       |       |       |       |       | $^\circ\text{C}$   |

(1) Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 (2) Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

# Ratings And Characteristic Curves

## R1200 THRU R5000

FIG. 1- FORWARD CURRENT DERATING CURVE

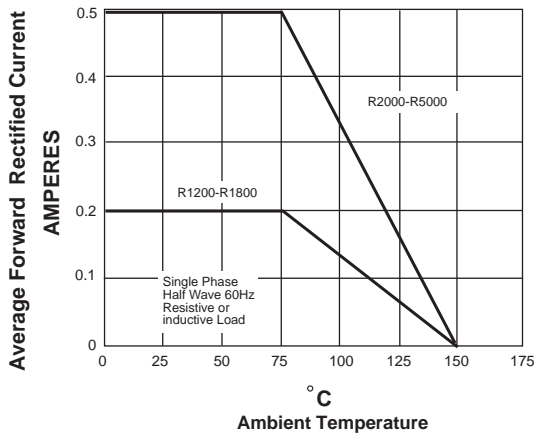


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

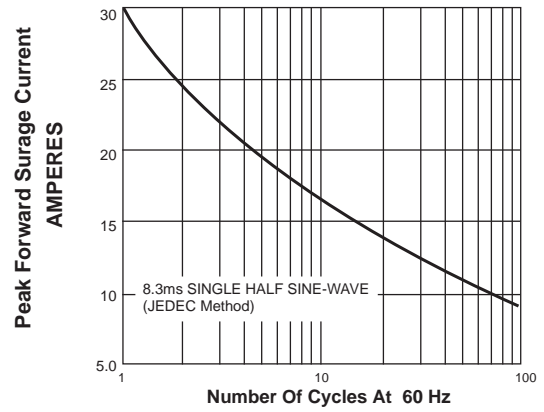
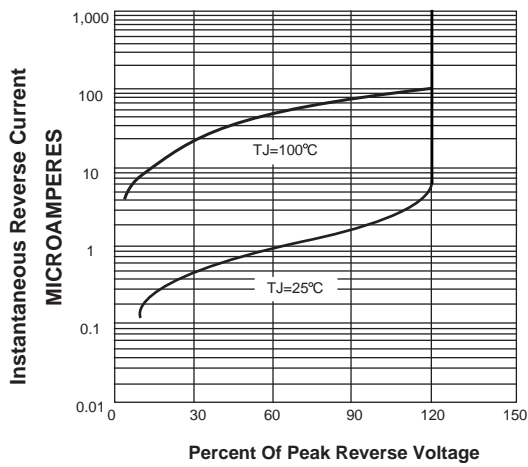
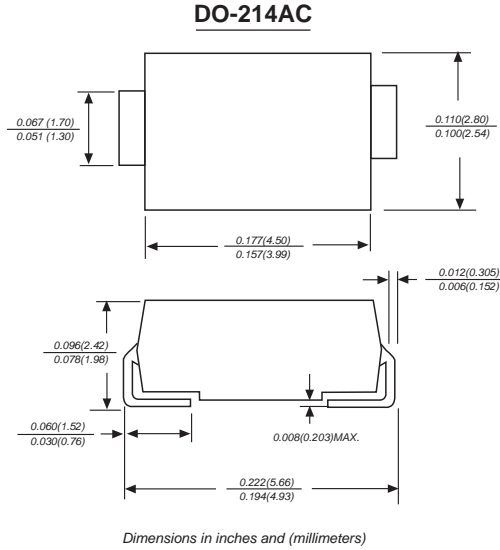


FIG. 3-TYPICAL REVERSE CHARACTERISTICS



Package Outline

DO-214AC SMA



Summary of Packing Options

| Package      | Packing Description | Packing Quantity | Industry Standard |
|--------------|---------------------|------------------|-------------------|
| DO-214AC SMA | Tape/Reel, 11" reel | 5000             | EIA-481-1         |
|              | Tape/Reel, 7" reel  | 2000             | EIA-481-1         |