

## **SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 2.0 Ampere**

### **FEATURES**

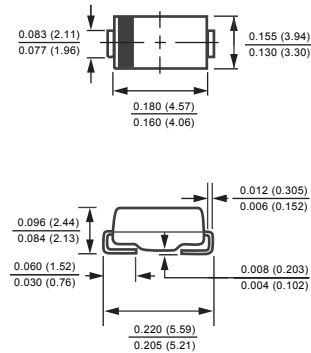
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.098 gram

### **MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0



**DO-214AA**



Dimensions in inches and (millimeters)

### **MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

| RATINGS                                                                                           | SYMBOL          | FM220        | FM230 | FM240 | FM250 | FM260 | FM280 | FM2100 | FM2150 | FM2200 | UNITS |
|---------------------------------------------------------------------------------------------------|-----------------|--------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                            | $V_{RRM}$       | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum RMS Voltage                                                                               | $V_{RMS}$       | 14           | 21    | 28    | 35    | 42    | 56    | 70     | 105    | 140    | Volts |
| Maximum DC Blocking Voltage                                                                       | $V_{DC}$        | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum Average Forward Rectified Current at Ambient Temperature                                  | $I_O$           | 2.0          |       |       |       |       |       |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 60           |       |       |       |       |       |        |        |        | Amps  |
| Typical Thermal Resistance (Note 1)                                                               | $R_{\theta JA}$ | 75           |       |       |       |       |       |        |        |        | °C/W  |
| Typical Thermal Resistance (Note 1)                                                               | $R_{\theta JL}$ | 17           |       |       |       |       |       |        |        |        | °C/W  |
| Typical Junction Capacitance (Note 2)                                                             | $C_J$           | 130          |       |       |       |       |       |        |        |        | pF    |
| Operating Temperature Range                                                                       | $T_J$           | 150          |       |       |       |       |       |        |        |        | °C    |
| Storage Temperature Range                                                                         | $T_{STG}$       | -55 to + 150 |       |       |       |       |       |        |        |        | °C    |

### **ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

| CHARACTERISTICS                                                 |                         | SYMBOL         | FM220 | FM230 | FM240 | FM250 | FM260 | FM280 | FM2100 | FM2150 | FM2200 | UNITS |
|-----------------------------------------------------------------|-------------------------|----------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 2.0A DC                |                         | V <sub>F</sub> | .55   |       |       | .70   |       | .85   |        |        |        | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | @T <sub>A</sub> = 25°C  | I <sub>R</sub> | 0.2   |       |       |       |       |       |        |        |        | mA    |
|                                                                 | @T <sub>A</sub> = 100°C |                | 2     |       |       |       |       |       |        |        |        | mA    |

- NOTES : 1. Thermal Resistance :Mounted on PCB.  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTICS CURVES ( FM220 THRU FM2200 )

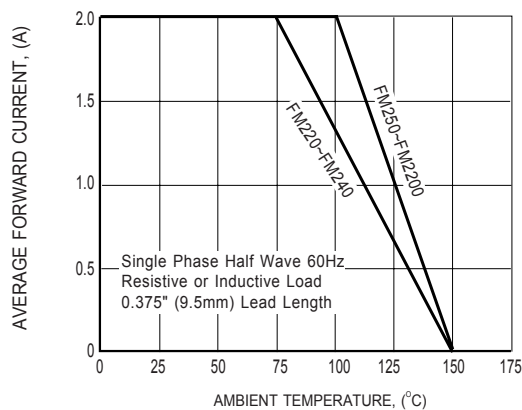


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

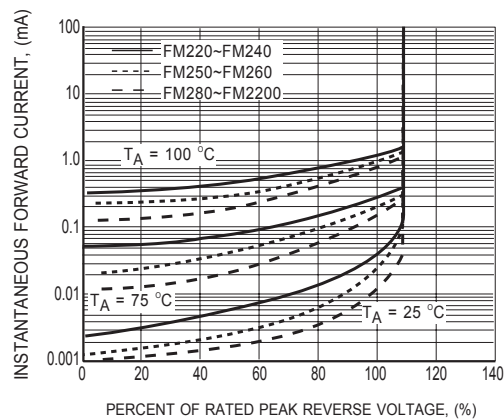


FIG.2 TYPICAL REVERSE CHARACTERISTICS

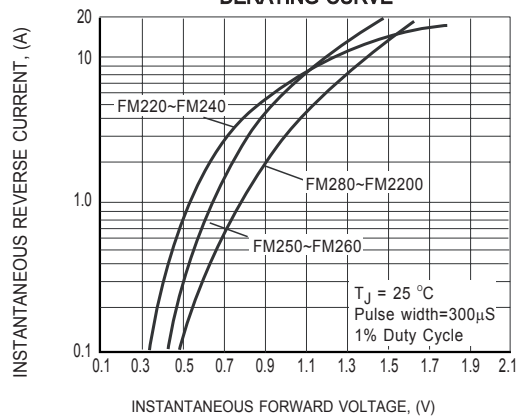


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

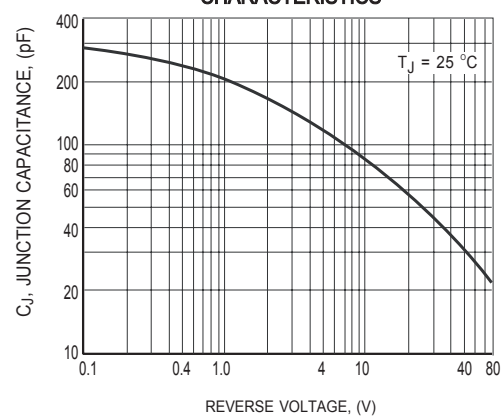


FIG.4 TYPICAL JUNCTION CAPACITANCE

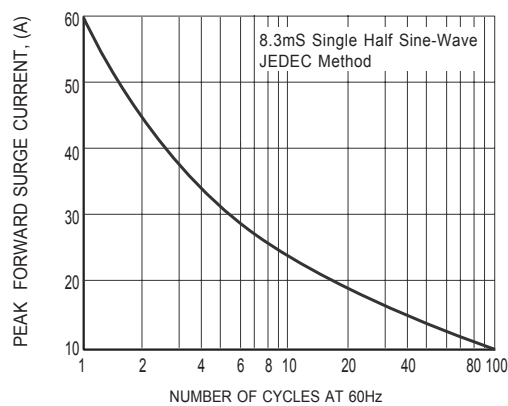
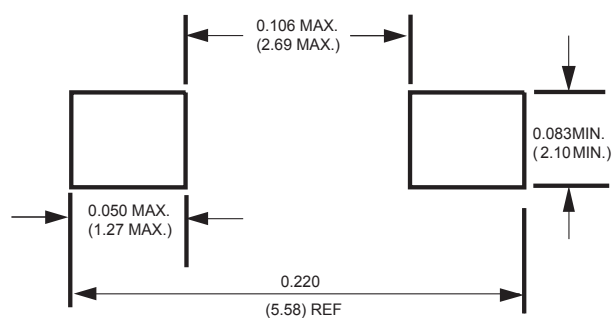


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

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