

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

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

**FEATURES**

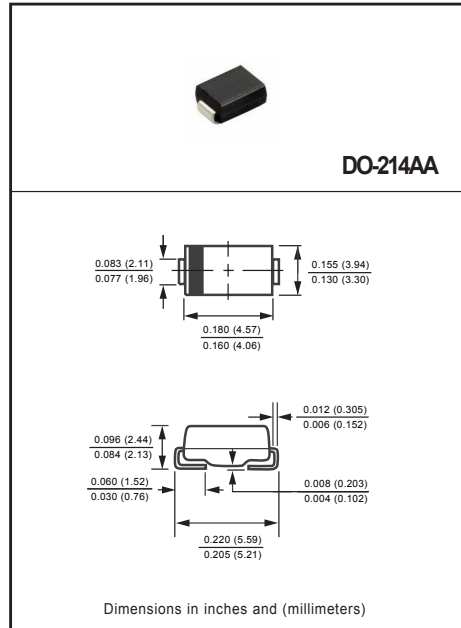
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.098 gram

**MECHANICAL DATA**

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

**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, derate current by 20%.



**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 <sub>RRM</sub> | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum RMS Voltage   | V <sub>RMS</sub> | 14           | 21    | 28    | 35    | 42    | 56    | 70     | 105    | 140    | Volts |
| Maximum DC Blocking Voltage   | V <sub>DC</sub>  | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum Average Forward Rectified Current at Ambient Temperature                                  | I <sub>O</sub>   | 2.0          |       |       |       |       |       |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 60           |       |       |       |       |       |        |        |        | Amps  |
| Typical Thermal Resistance (Note 1)   | R <sub>θJA</sub> | 75           |       |       |       |       |       |        |        |        | °C/W  |
| Typical Thermal Resistance (Note 1)   | R <sub>θJL</sub> | 17           |       |       |       |       |       |        |        |        | °C/W  |
| Typical Junction Capacitance (Note 2)   | C <sub>J</sub>   | 130          |       |       |       |       |       |        |        |        | pF    |
| Operating Temperature Range   | T <sub>J</sub>   | 150          |       |       |       |       |       |        |        |        | °C    |
| Storage Temperature Range   | T <sub>STG</sub> | -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                  | I <sub>R</sub> | 0.2   |       |       |       |       |       |        |        |        | mA    |
| at Rated DC Blocking Voltage                     |                | 2     |       |       |       |       |       |        |        |        |       |

- 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)".

2006-11

## RATING AND CHARACTERISTICS CURVES ( FM220 THRU FM2200 )

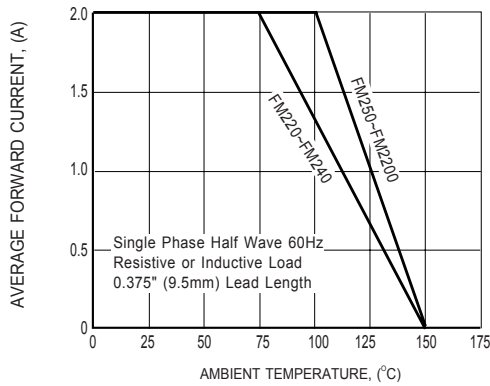


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

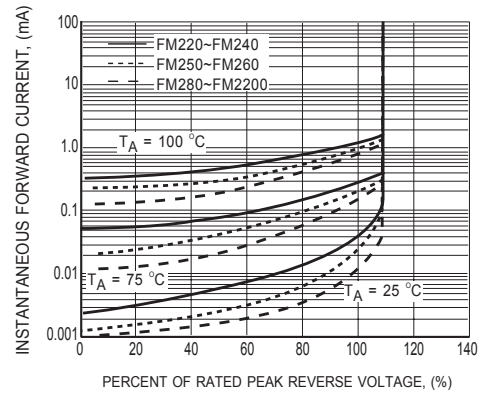


FIG.2 TYPICAL REVERSE CHARACTERISTICS

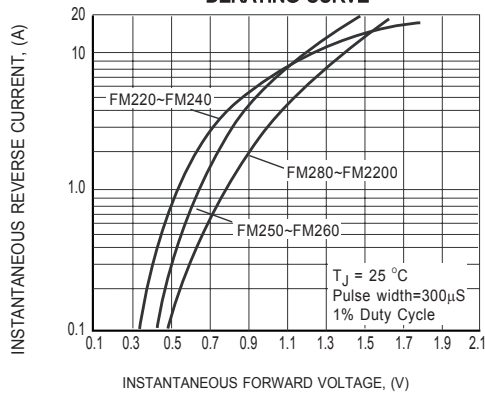


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

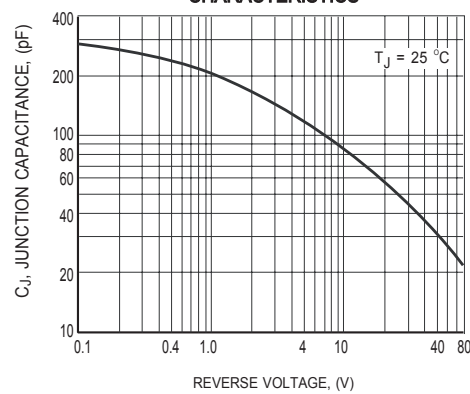


FIG.4 TYPICAL JUNCTION CAPACITANCE

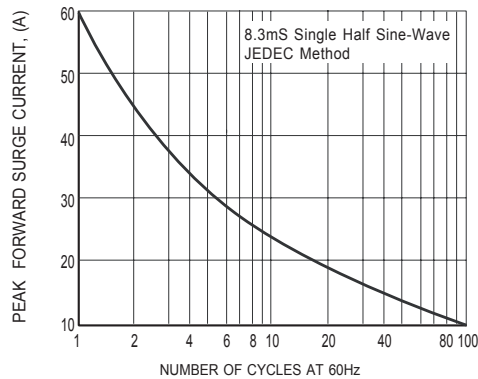
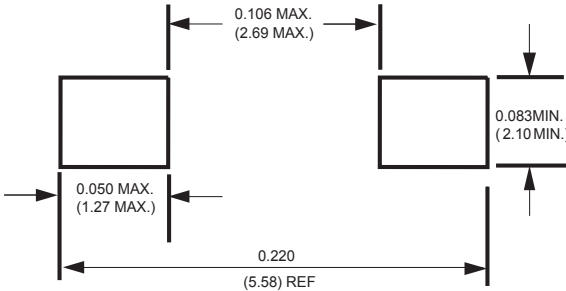


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



# Mounting Pad Layout



Dimensions in inches and (millimeters)



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