

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE RANGE 20 to 60 Volts CURRENT 3.0 Amperes**

**FEATURES**

- \* Fast switching
- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability
- \* High reliability
- \* High surge capability

**MECHANICAL DATA**

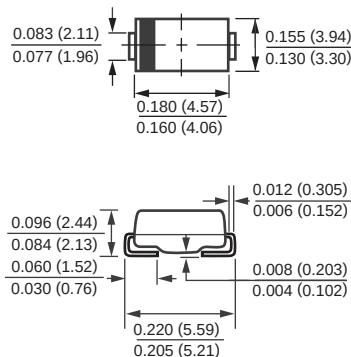
- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-0
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.098 gram

**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%.



**DO-214AA**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

| RATINGS                                                                                              | SYMBOL           | FM320B       | FM330B | FM340B | FM350B       | FM360B | UNITS |
|------------------------------------------------------------------------------------------------------|------------------|--------------|--------|--------|--------------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                               | V <sub>RRM</sub> | 20           | 30     | 40     | 50           | 60     | Volts |
| Maximum RMS Voltage                                                                                  | V <sub>RMS</sub> | 14           | 21     | 28     | 35           | 42     | Volts |
| Maximum DC Blocking Voltage                                                                          | V <sub>DC</sub>  | 20           | 30     | 40     | 50           | 60     | Volts |
| Maximum Average Forward Rectified Current<br>at Derating Lead Temperature                            | I <sub>O</sub>   | 3.0          |        |        |              |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | I <sub>FSM</sub> | 80           |        |        |              |        | Amps  |
| Typical Thermal Resistance (Note 1)                                                                  | R <sub>θJA</sub> | 25           |        |        |              |        | °C/W  |
| Typical Junction Capacitance (Note 2)                                                                | C <sub>J</sub>   | 200          |        |        |              |        | pF    |
| Operating Temperature Range                                                                          | T <sub>J</sub>   | -55 to + 125 |        |        | -55 to + 150 |        | °C    |
| Storage Temperature Range                                                                            | T <sub>STG</sub> | -55 to + 150 |        |        |              |        | °C    |

**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

| CHARACTERISTICS                                                 | SYMBOL | FM320B | FM330B | FM340B | FM350B | FM360B | UNITS |
|-----------------------------------------------------------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 3.0A DC                | $V_F$  | .55    |        |        | .75    |        | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | $I_R$  | 2.0    |        |        | 20     |        | mAmps |
|                                                                 |        |        |        |        |        |        | mAmps |

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

## RATING AND CHARACTERISTIC CURVES ( FM320B THRU FM360B )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

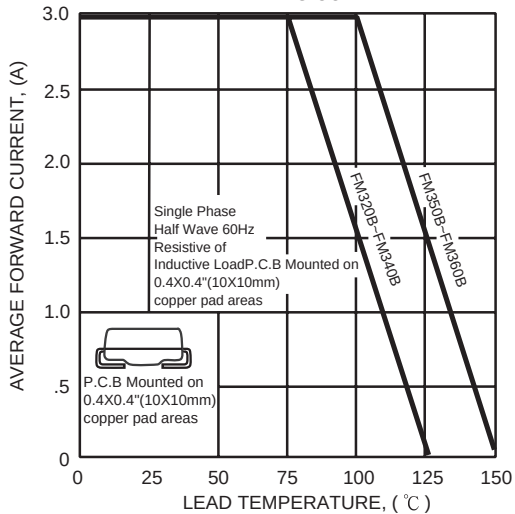


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

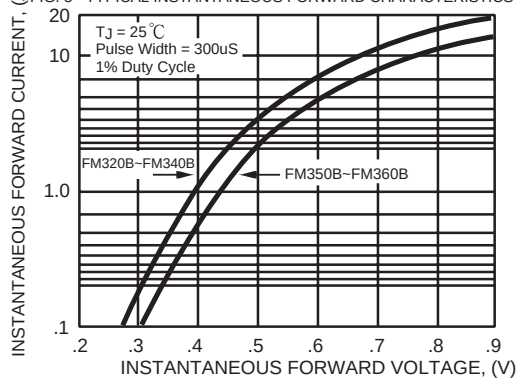


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

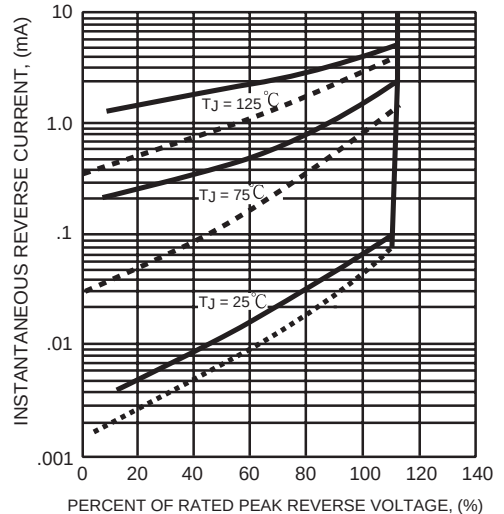


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

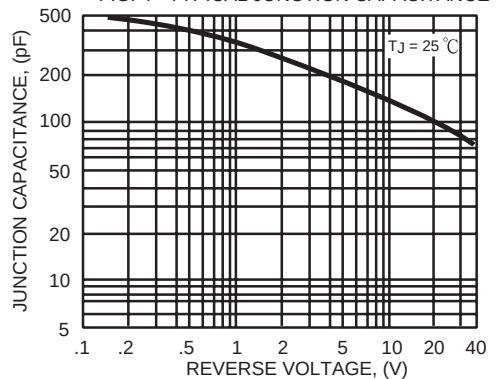
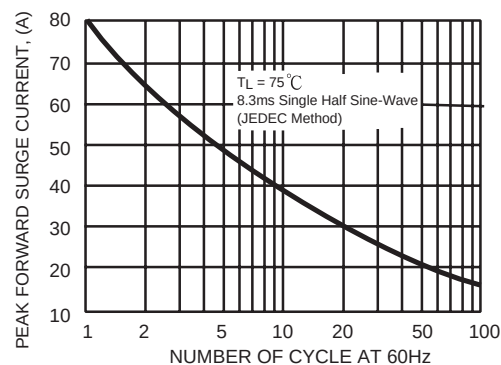
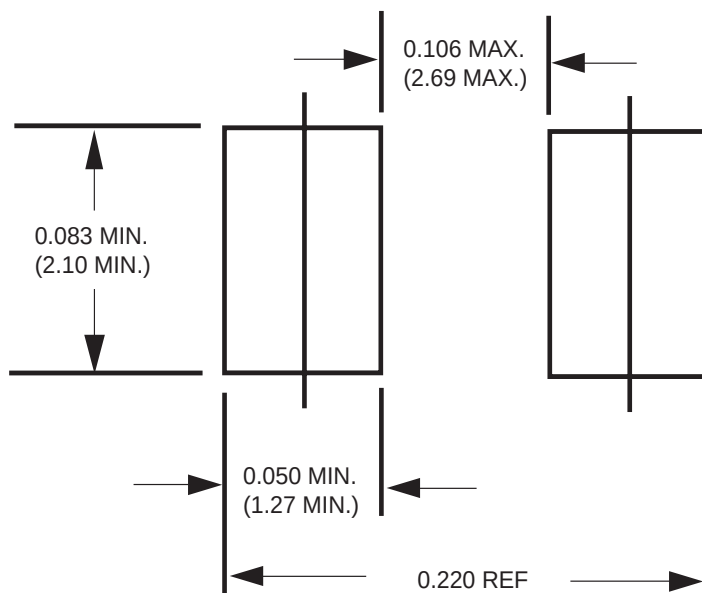


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



## Mounting Pad Layout



Dimensions in inches and (millimeters)