

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 40 Volts CURRENT 3.0 Amperes**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.057 gram

**MECHANICAL DATA**

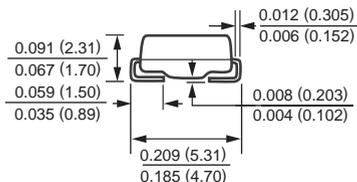
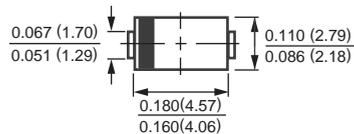
- \* Epoxy: Device has UL flammability classification 94V-O

**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-214AC**



Dimensions in inches and (millimeters)

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

| RATINGS   | SYMBOL | FM5820A      | FM5821A | FM5822A | UNITS |
|---|--------|--------------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 20           | 30      | 40      | Volts |
| Maximum RMS Voltage   | VRMS   | 14           | 21      | 28      | Volts |
| Maximum DC Blocking Voltage   | VDC    | 20           | 30      | 40      | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            | IO     | 3.0          |         |         | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM   | 80           |         |         | Amps  |
| Typical Thermal Resistance (Note 1)   | RθJA   | 25           |         |         | °C/W  |
| Typical Junction Capacitance (Note 2)   | CJ     | 200          |         |         | pF    |
| Operating Temperature Range   | TJ     | -55 to + 150 |         |         | °C    |
| Storage Temperature Range   | TSTG   | -55 to + 150 |         |         | °C    |

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

| CHARACTERISTICS  | SYMBOL | FM5820A      | FM5821A | FM5822A | UNITS |
|--|--------|--------------|---------|---------|-------|
| Maximum Instantaneous Forward Voltage at 3.0A DC             | VF     | .475         | .500    | .525    | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | IR     | @ TA = 25°C  | 2.0     |         | mAmps |
|  |        | @ TA = 100°C | 20      |         | mAmps |

- NOTES : 1. Thermal Resistance (Junction to Ambient).  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 3. Also available in DO-214AC (SMA) & DO-214AA (SMB) package.

# RATING AND CHARACTERISTIC CURVES ( FM5820A THRU FM5822A )

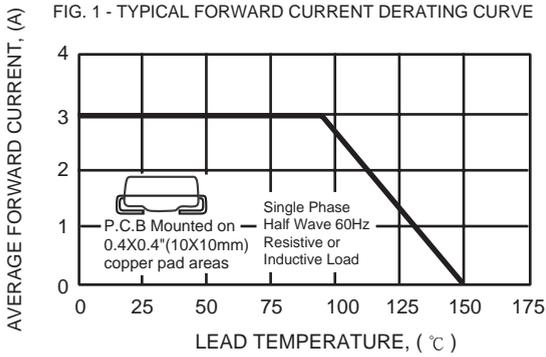


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

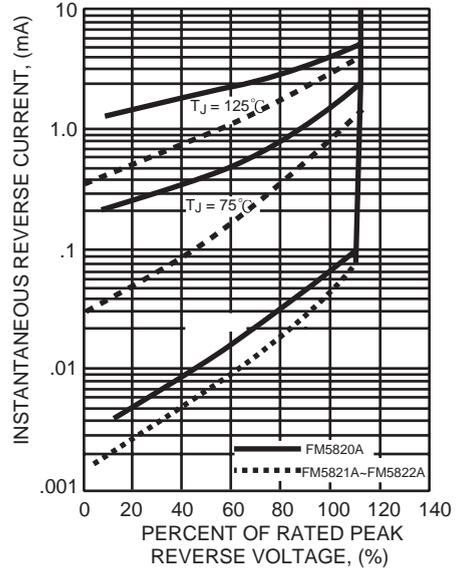


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

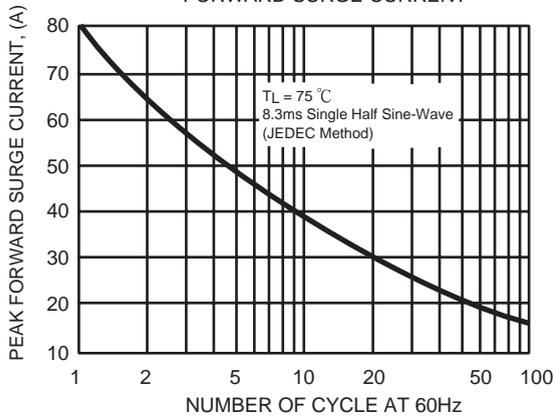


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

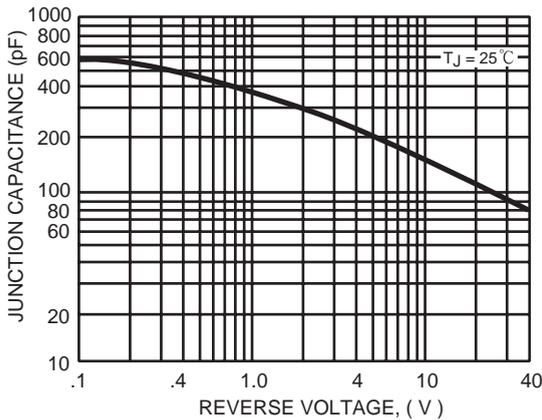
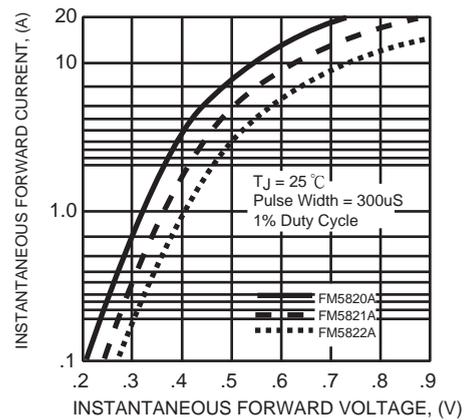
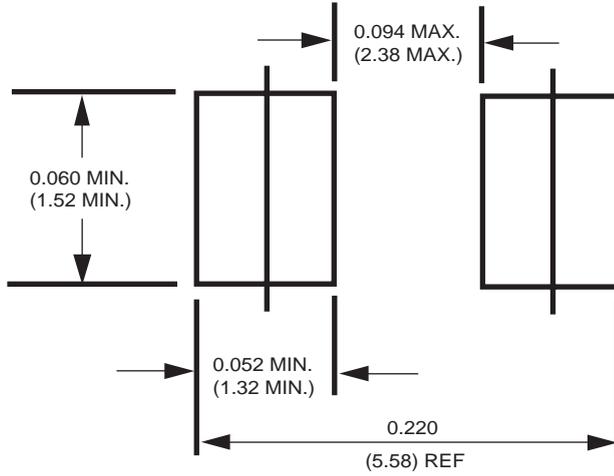


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



## Mounting Pad Layout



Dimensions in inches and (millimeters)