

**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 100 Volts CURRENT 1.0 Ampere**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.09 gram

**MECHANICAL DATA**

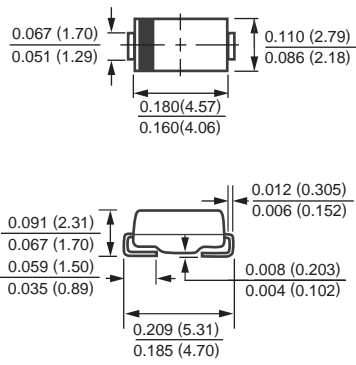
- \* Epoxy: Device has UL flammability classification 94V-0

**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%.



**DO-214AC**



Dimensions in inches and (millimeters)

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

| RATINGS   | SYMBOL | FMB120       | FMB130 | FMB140 | FMB150       | FMB160 | FMB180 | FMB1100 | UNITS |      |
|---|--------|--------------|--------|--------|--------------|--------|--------|---------|-------|------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 20           | 30     | 40     | 50           | 60     | 80     | 100     | Volts |      |
| Maximum RMS Voltage   | VRMS   | 14           | 21     | 28     | 35           | 42     | 56     | 70      | Volts |      |
| Maximum DC Blocking Voltage   | VDC    | 20           | 30     | 40     | 50           | 60     | 80     | 100     | Volts |      |
| Maximum Average Forward Rectified Current at Derating Lead Temperature                            | IO     | 1.0          |        |        |              |        |        |         |       | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM   | 40           |        |        |              |        |        |         |       | Amps |
| Typical Thermal Resistance (Note 1)   | RθJA   | 50           |        |        |              |        |        |         |       | °C/W |
| Typical Junction Capacitance (Note 2)   | CJ     | 110          |        |        |              |        |        |         |       | pF   |
| Operating Temperature Range   | TJ     | -65 to + 125 |        |        | -65 to + 150 |        |        |         |       | °C   |
| Storage Temperature Range   | TSTG   | -65 to + 150 |        |        |              |        |        |         |       | °C   |

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

| CHARACTERISTICS  | SYMBOL | FMB120 | FMB130 | FMB140 | FMB150 | FMB160 | FMB180 | FMB1100 | UNITS |
|--|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC             | VF     | .55    |        |        | .70    |        | .85    |         | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | IR     |        |        |        | 1.0    |        |        |         | mAmps |
|  |        |        |        |        | 10     |        |        |         | mAmps |

- NOTES : 1. Thermal Resistance (Junction to Ambient).  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
 3. P.C.B Monuted with 0.2X0.2" (5.0X5.0mm<sup>2</sup>) copper pad area.

# RATING AND CHARACTERISTIC CURVES ( FM120 THRU FM1100 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

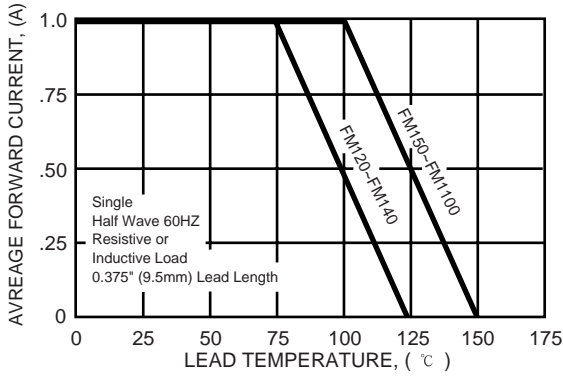


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

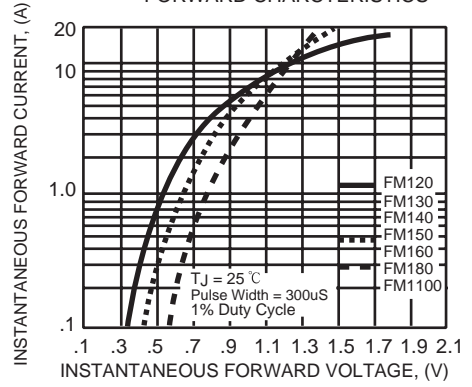


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

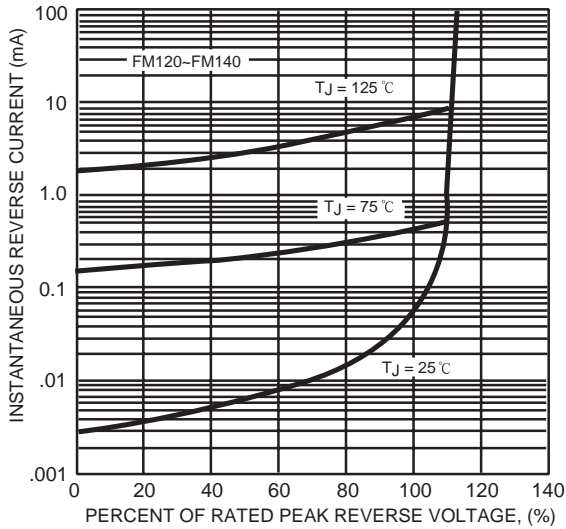


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

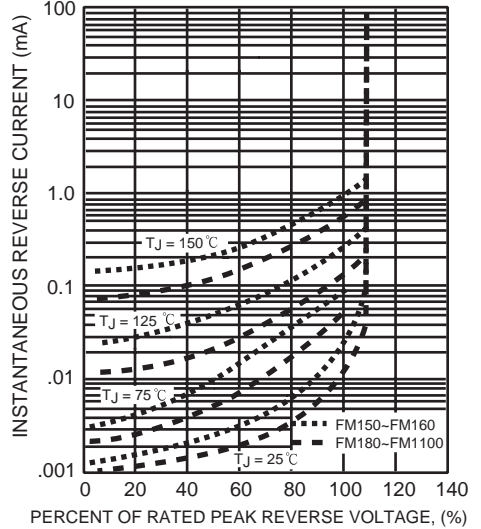


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

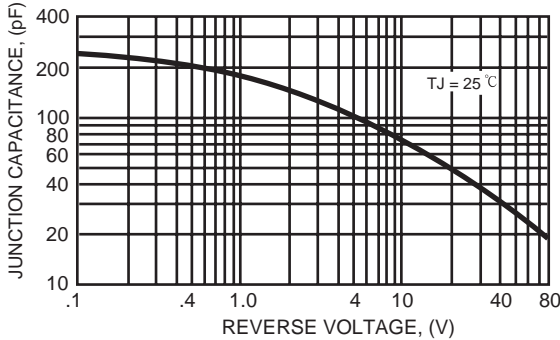


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

