

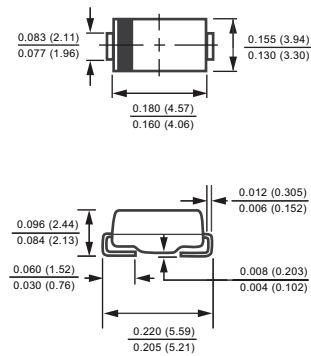
**SURFACE MOUNT**  
**GLASS PASSIVATED SILICON RECTIFIER**  
**VOLTAGE 2000 Volts CURRENT 1.0 Ampere**

**FEATURES**

- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any



**SMB**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.

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

| RATINGS   | SYMBOL          | FM2000B      | UNITS              |
|---|-----------------|--------------|--------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 2000         | Volts              |
| Maximum RMS Voltage   | $V_{RMS}$       | 1400         | Volts              |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 2000         | Volts              |
| Maximum Average Forward Rectified Current at Terminals Temperature                                | $I_o$           | 1.0          | Amps               |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$       | 30           | Amps               |
| Current Squarad Time  | $I^2t$          | 3.75         | A <sup>2</sup> Sec |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JA}$ | 45           | °C/W               |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JT}$ | 10           | °C/W               |
| Typical Junction Capacitance (Note 2)   | $C_J$           | 15           | pF                 |
| Operating Temperature Range   | $T_J$           | -55 to + 175 | °C                 |
| Storage Temperature Range   | $T_{STG}$       | -55 to + 175 | °C                 |

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

| CHARACTERISTICS  | SYMBOL                      | FM2000B | UNITS           |
|--|-----------------------------|---------|-----------------|
| Maximum Instantaneous Forward Voltage at 1.0A DC             | $V_F$                       | 1.1     | Volts           |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | @ $T_A = 25^\circ\text{C}$  | 2.0     | $\mu\text{A}$   |
|  | @ $T_A = 150^\circ\text{C}$ | 1.0     | mA              |
| Typical Reverse Recovery Time (Note 3)                       | $t_{rr}$                    | 2.0     | $\mu\text{Sec}$ |

- NOTES : 1. Thermal Resistance :Mounted on PCB.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.  
3. Test Conditions:  $I_F = 0.5A$ ,  $I_R = -1.0A$ ,  $I_{RR} = -0.25A$ .

## RATING AND CHARACTERISTICS CURVES (FM2000B)

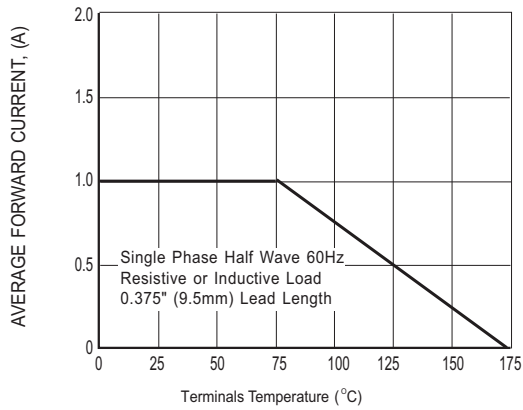


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

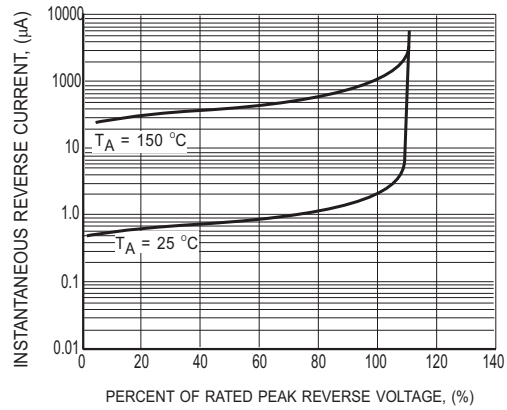


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

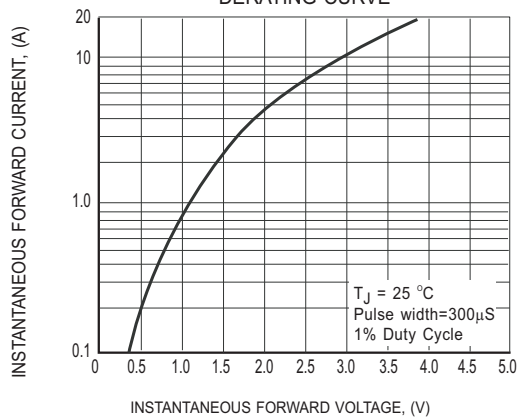


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

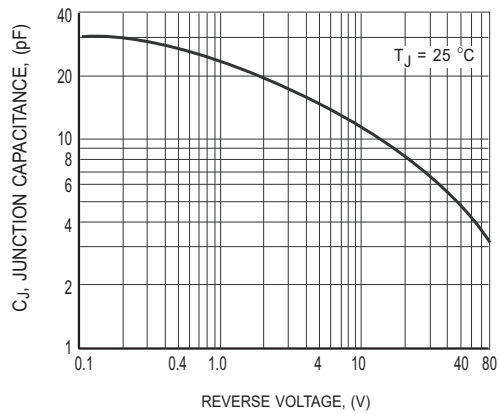


FIG.4 TYPICAL JUNCTION CAPACITANCE

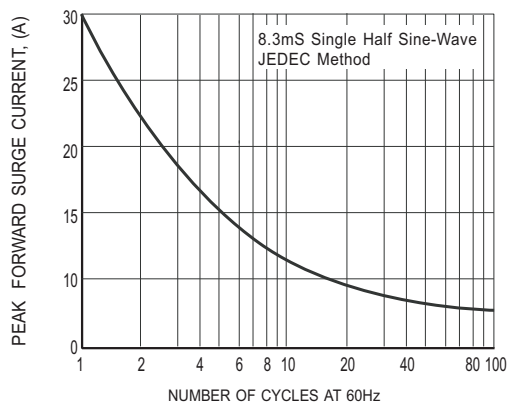
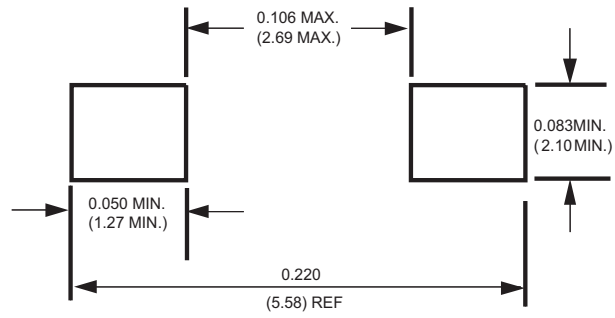


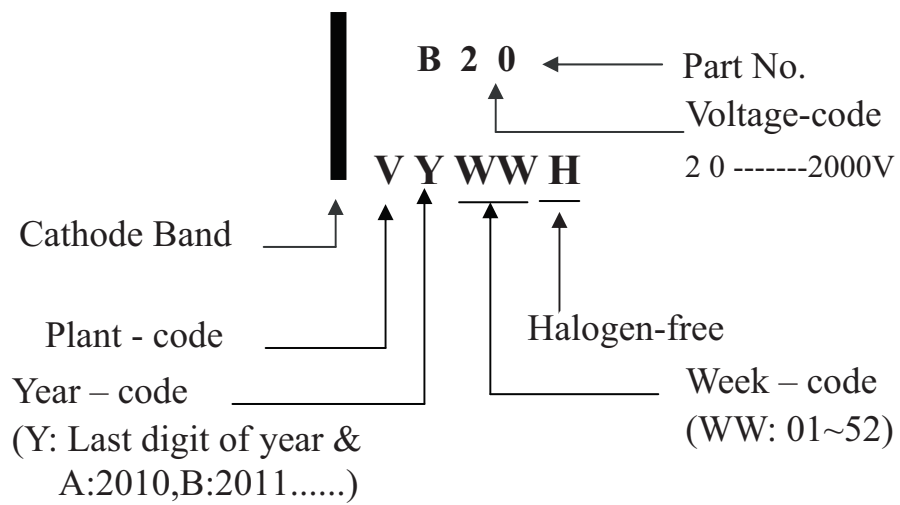
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| SMB     | -W/-T        | 3,000       | 6,000            | ---                  | ---             | 330           | 360*355*360      | 48,000        | 13.90            |

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