

SURFACE MOUNT
GLASS PASSIVATED SILICON RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

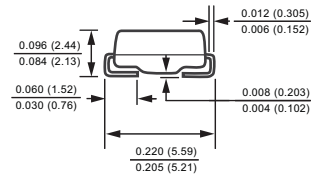
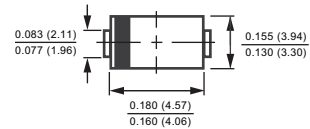
- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.098 gram

MECHANICAL DATA

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



DO-214AA



Dimensions in inches and (millimeters)

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 | FM4001B | FM4002B | FM4003B | FM4004B | FM4005B | FM4006B | FM4007B | UNITS |
|---|-----------------|--------------|---------|---------|---------|---------|---------|---------|---------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at Ambient 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 Squared Time | I^2t | 3.7 | | | | | | | A ² /Sec |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 80 | | | | | | | °C/W |
| Typical Thermal Resistance (Note 1) | $R_{\theta JL}$ | 27 | | | | | 30 | | °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 | FM4001B | FM4002B | FM4003B | FM4004B | FM4005B | FM4006B | FM4007B | UNITS | |
|--|--------|-------------------------|---------|---------|---------|---------|---------|---------|-------|----|
| Maximum Instantaneous Forward Voltage at 1.0A DC | V_F | 1.0 | | | | | | | Volts | |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | I_R | @T _A = 25°C | | | | | | | 0.5 | uA |
| | | @T _A = 150°C | | | | | | | 100 | uA |

NOTES : 1. Thermal Resistance :Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2019-04
REV:C

RATING AND CHARACTERISTICS CURVES (FM4001B THRU FM4007B)

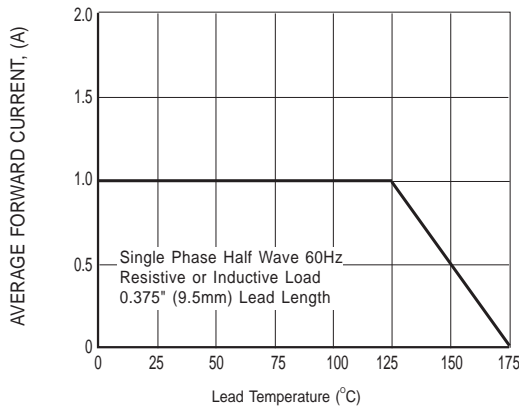


FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

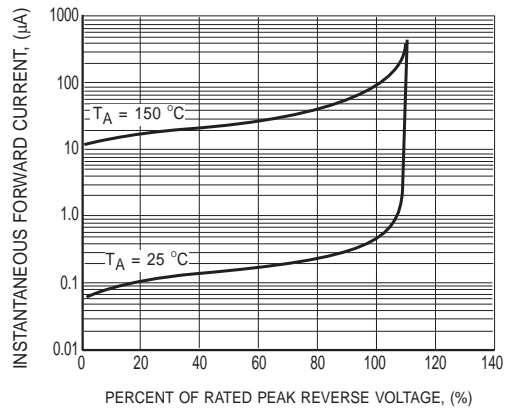


FIG.2 MAXIMUM REVERSE CHARACTERISTICS

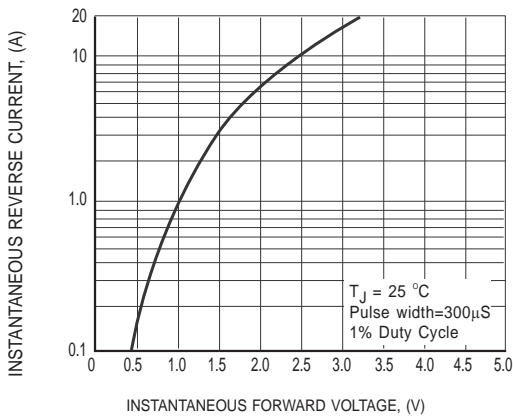


FIG.3 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

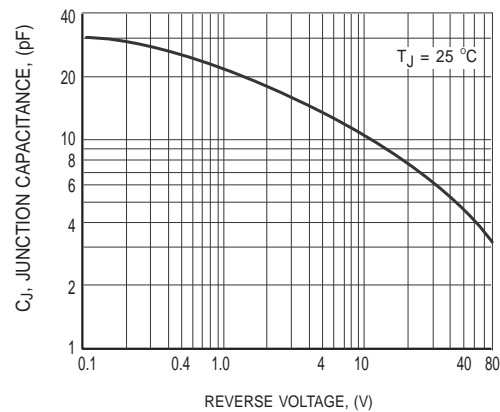


FIG.4 TYPICAL JUNCTION CAPACITANCE

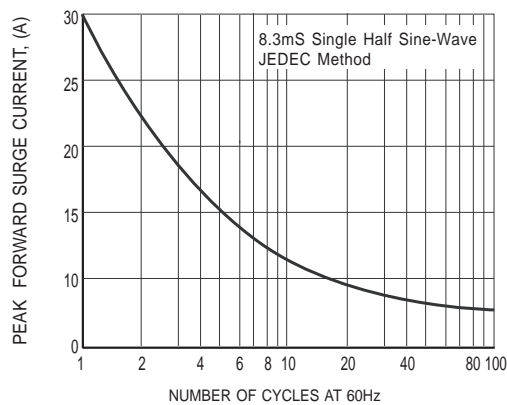
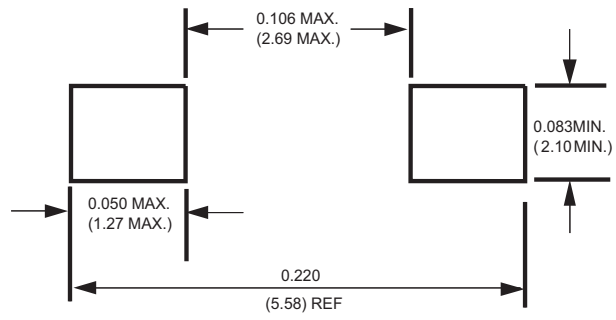


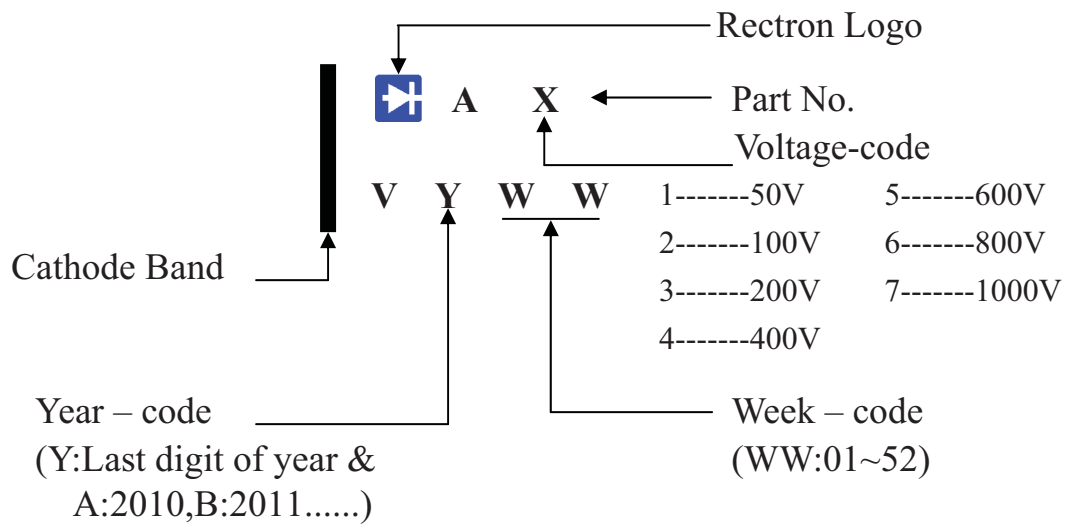
FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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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