

SURFACE MOUNT
GLASS PASSIVATED SILICON RECTIFIER
VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Amperes

FEATURES

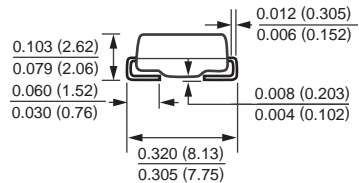
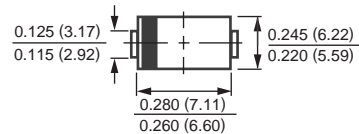
- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.24 gram

MECHANICAL DATA

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



DO-214AB



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 (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | FM301 | FM302 | FM303 | FM304 | FM305 | FM306 | FM307 | UNITS |
|---|---------------|--------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current TA = 75°C | IO | 3.0 | | | | | | | Amps |
| Peak Forward Surge Current IFM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 100 | | | | | | | Amps |
| Typical Thermal Resistance | (Note 2) RθJL | 10 | | | | | | | °C/W |
| | (Note 3) RθJA | 35 | | | | | | | °C/W |
| Typical Junction Capacitance (Note 1) | CJ | 60 | | | | | | | pF |
| Operating and Storage Temperature Range | TJ, TSTG | -55 to + 150 | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | FM301 | FM302 | FM303 | FM304 | FM305 | FM306 | FM307 | UNITS |
|--|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Forward Voltage at 3.0A DC | VF | 1.1 | | | | | | | Volts |
| Maximum Full Load Reverse Current, Full cycle Average at TA=75°C | IR | 30 | | | | | | | uAmps |
| Maximum DC Average Reverse Current at @TA = 25°C | | 5.0 | | | | | | | uAmps |
| Rated DC Blocking Voltage @TA = 125°C | | 250 | | | | | | | uAmps |

- NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC
 2. Thermal resistance junction to terminal, 10.0X10.0mm² copper pads to each terminal.
 3. Thermal resistance junction to ambient, 10.0X10.0mm² copper pads to each terminal.

RATING AND CHARACTERISTIC CURVES (FM301 THRU FM307)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

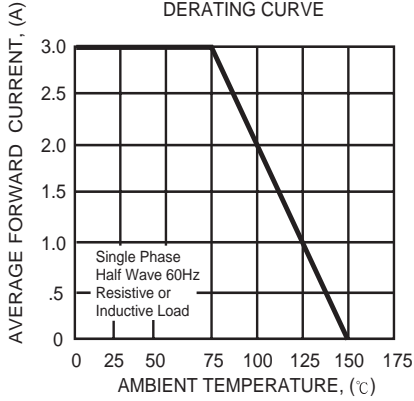


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

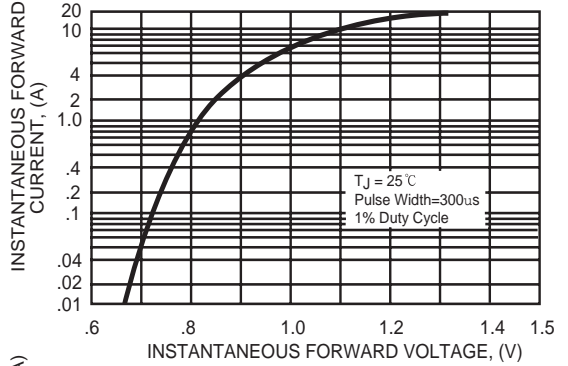


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

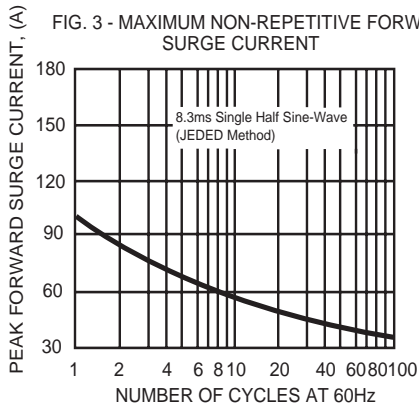


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

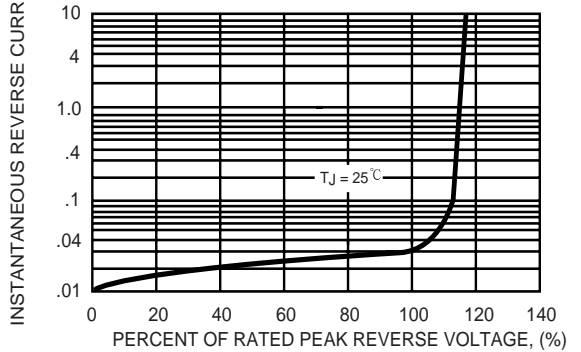
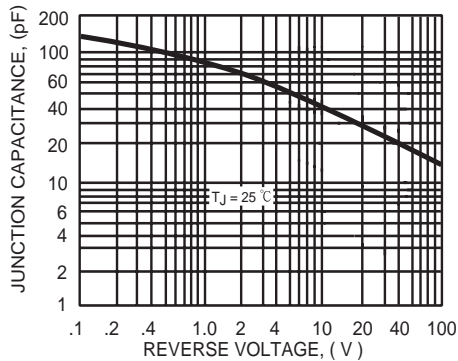
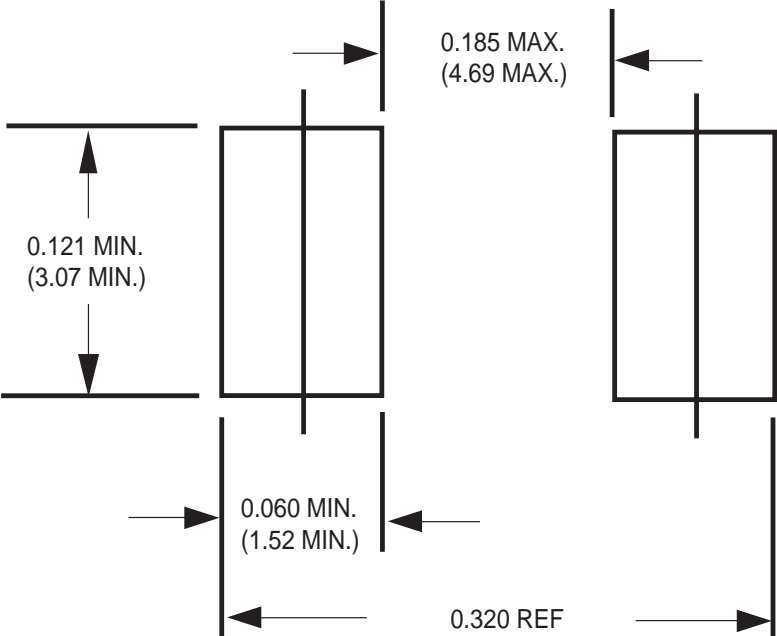


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Dimensions in inches and (millimeters)