

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 200 Volts CURRENT 3.0 Ampere

FEATURES

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

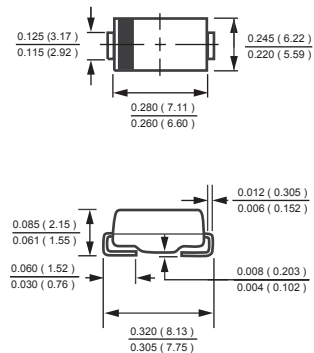
MECHANICAL DATA

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

NEW RELEASE



SMCL



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 | FM320L | FM330L | FM340L | FM350L | FM360L | FM380L | FM3100L | FM3150L | FM3200L | UNITS | |
|---|-----------------|--------------|--------|--------|--------|--------|--------|---------|---------|---------|-------|------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | Volts | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts | |
| Maximum Average Forward Rectified Current at Ambient Temperature | I_O | 3.0 | | | | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 80 | | | | | | | | | | Amps |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 55 | | | | | | | | | | °C/W |
| | $R_{\theta JL}$ | 17 | | | | | | | | | | |
| Typical Junction Capacitance (Note 2) | C_J | 200 | | | | | | | | | | pF |
| Operating Temperature Range | T_J | 150 | | | | | | | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to + 150 | | | | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | FM320L | FM330L | FM340L | FM350L | FM360L | FM380L | FM3100L | FM3150L | FM3200L | UNITS | |
|--|-----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|-------|----|
| Maximum Instantaneous Forward Voltage at 3.0A DC | V_F | .55 | | | .75 | | .85 | | | | Volts | |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | @ $T_A = 25^\circ C$ | 0.2 | | | | | | | | | | mA |
| | @ $T_A = 100^\circ C$ | 2 | | | | | | | | | | mA |

- NOTES : 1. Thermal Resistance : Mounted on PCB.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

RATING AND CHARACTERISTICS CURVES (FM320L THRU FM3200L)

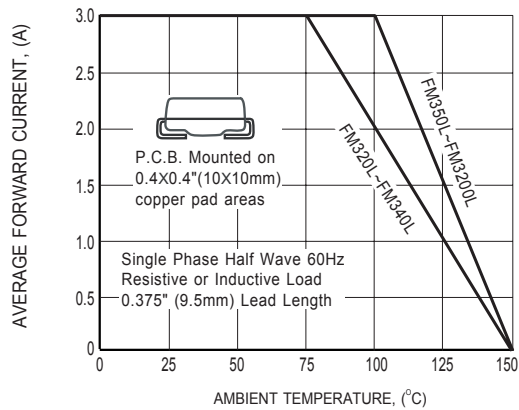


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

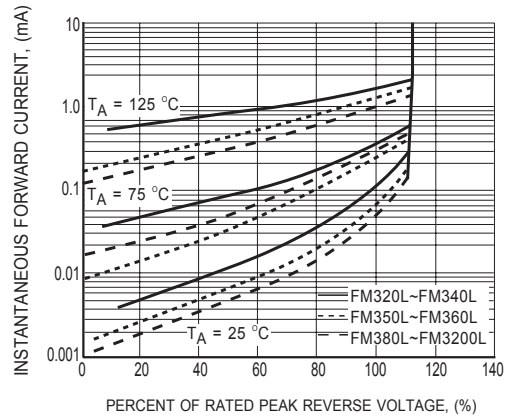


FIG.2 TYPICAL REVERSE CHARACTERISTICS

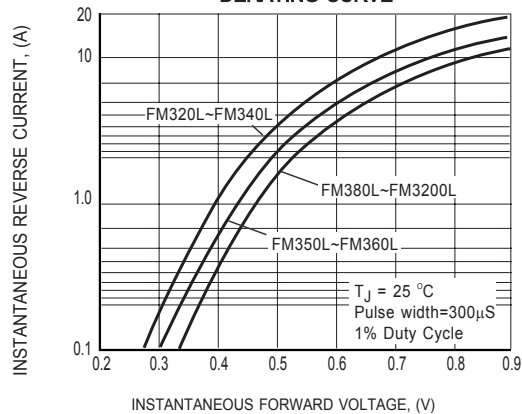


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

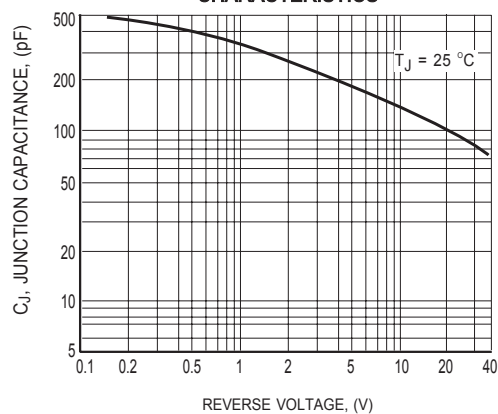


FIG.4 TYPICAL JUNCTION CAPACITANCE

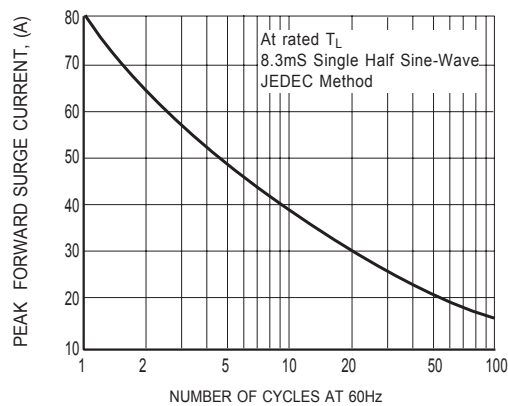
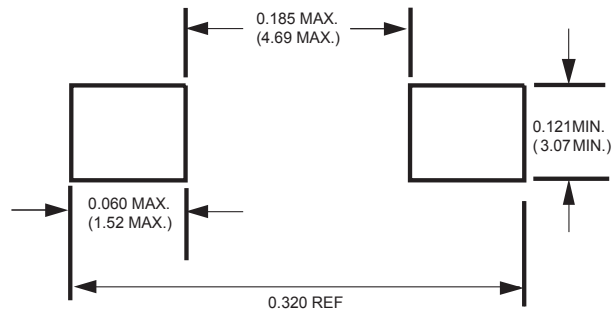


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

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