



**FM4001L
THRU
FM4007L**

**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: 0.057 gram

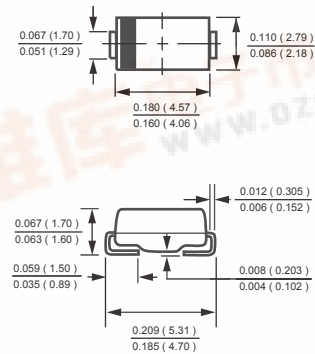
MECHANICAL DATA

- * 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%.

SMAL



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	FM4001L	FM4002L	FM4003L	FM4004L	FM4005L	FM4006L	FM4007L	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
Typical Thermal Resistance (Note 1)	R _{θJA}	80				85			°C/W
Typical Thermal Resistance (Note 1)	R _{θJL}	26				30			°C/W
Typical Junction Capacitance (Note 2)	C _J	15							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	FM4001L	FM4002L	FM4003L	FM4004L	FM4005L	FM4006L	FM4007L	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F	1.1							Volts
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	5.0							μA
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		100							μA

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)".

2006-11

RATING AND CHARACTERISTICS CURVES (FM4001L THRU FM4007L)

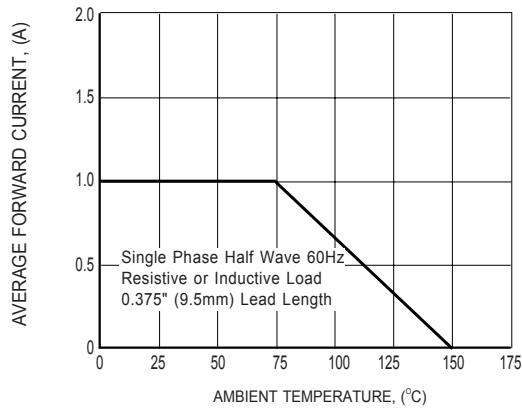


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

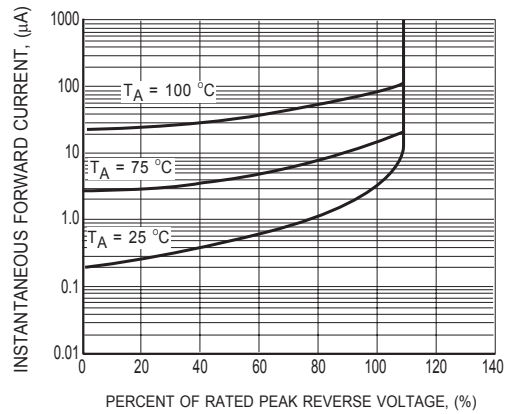


FIG.2 TYPICAL REVERSE CHARACTERISTICS

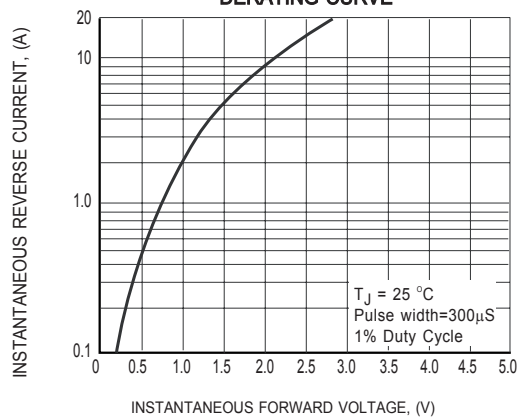


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

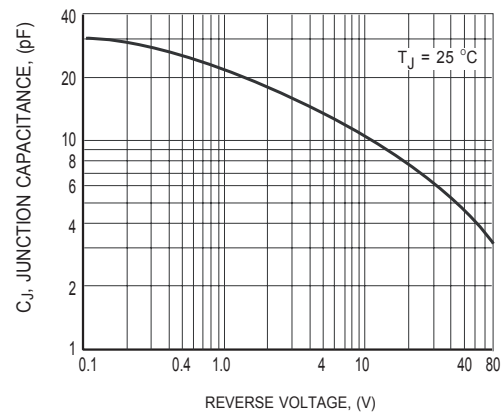


FIG.4 TYPICAL JUNCTION CAPACITANCE

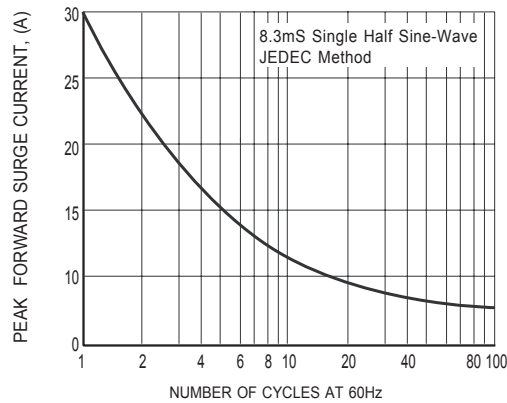
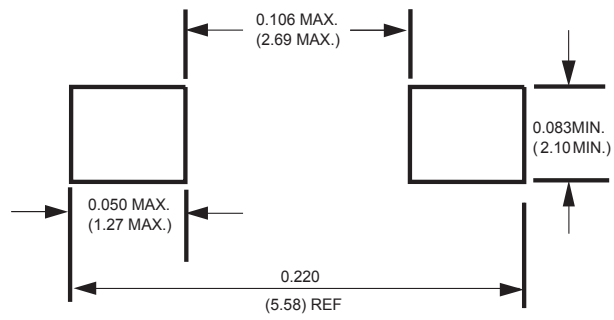


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Mounting Pad Layout



Dimensions in inches and (millimeters)

