

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

FEATURES

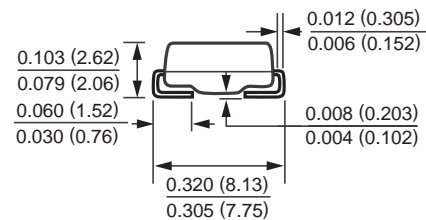
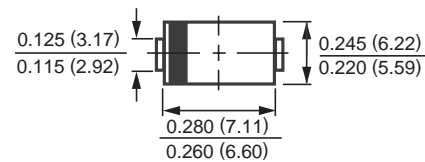
- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.24 gram

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 IFSM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150							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 Rated DC Blocking Voltage		@TA = 25°C	5.0							uAmps
		@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.

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RATING AND CHARACTERISTIC CURVES (FM301 THRU FM307)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

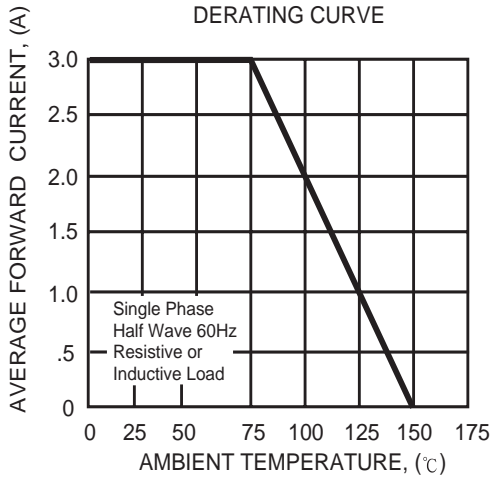


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

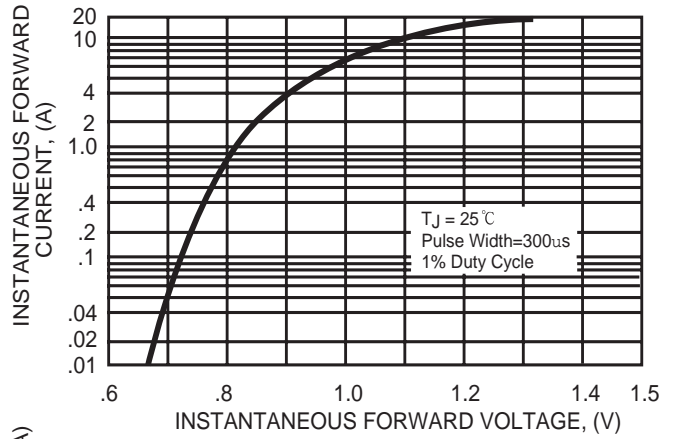


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

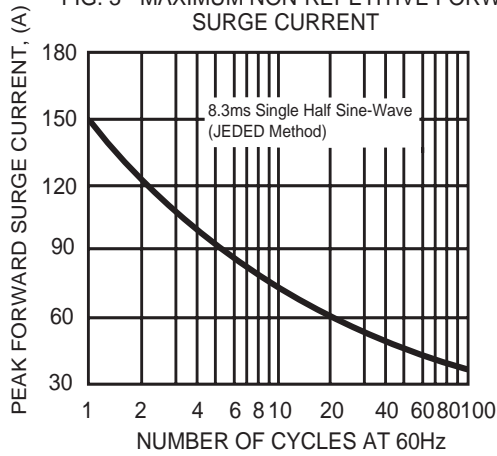


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

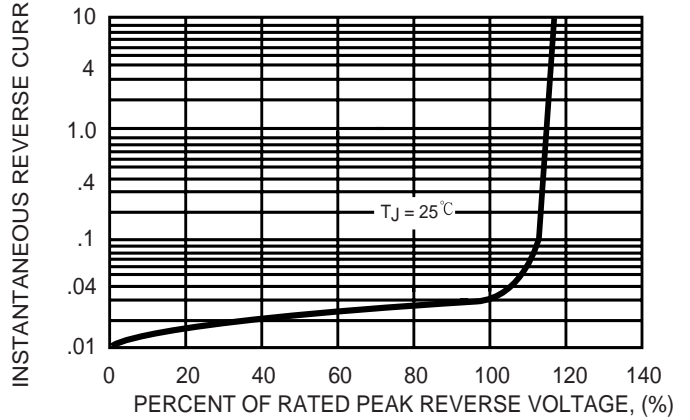
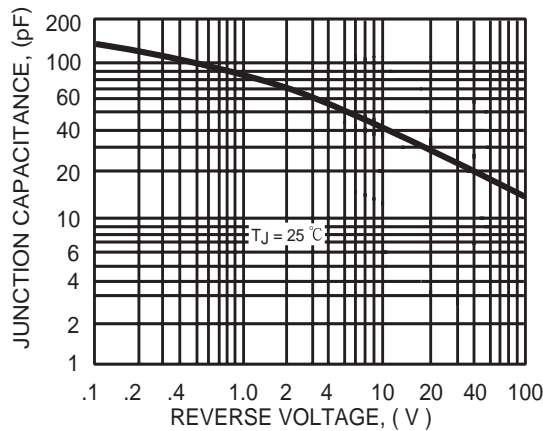
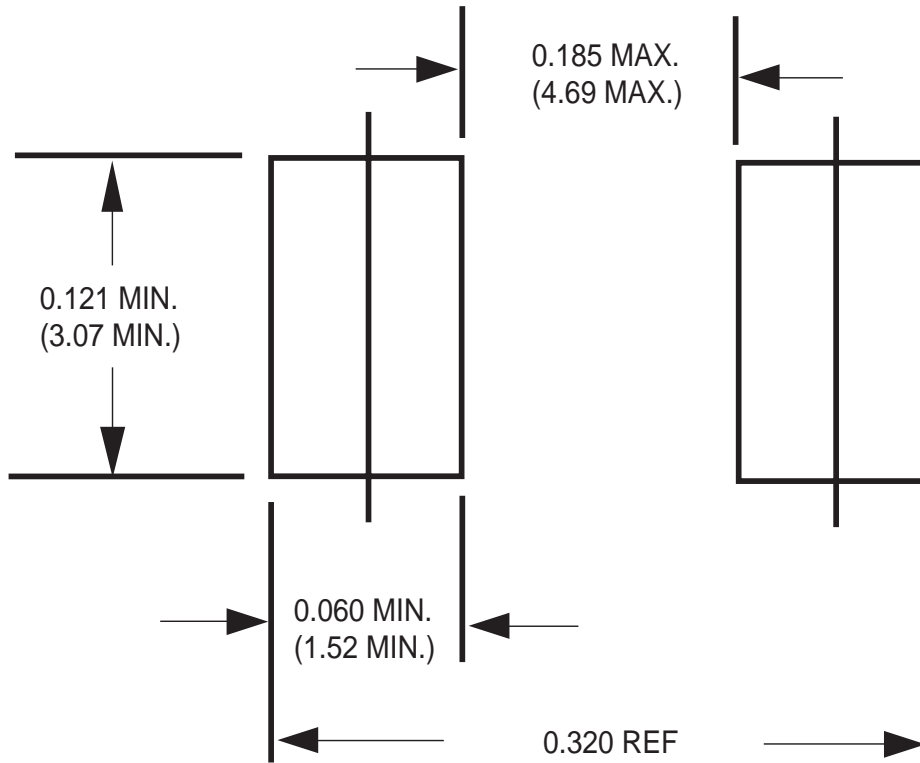


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Dimensions in inches and (millimeters)