

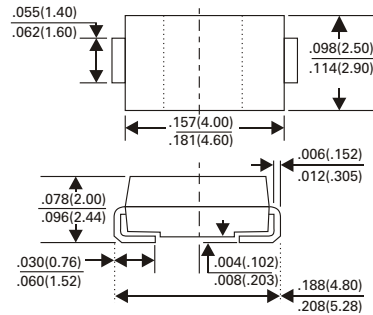
# FM4001 thru FM4007

## SURFACE MOUNT STANDARD RECOVERY RECTIFIER

VOLTAGE - 50 TO 1000 VOLTS CURRENT - 1.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

### FEATURES

- For surface mount applications
- Glass passivated junction
- Low profile package
- Built-in strain relief
- Easy pick and place
- Low forward voltage drop
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering : 250°C/10 seconds at terminals

### MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic  
 Terminals : Solder plated, solderable per MIL-STD-202, Method 208  
 Polarity : Color band denotes cathode end  
 Standard Package : 12mm tape (EIA STD EIA-481)  
 Weight : 0.002 ounce, 0.064gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave, 60Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

	SYMBOL	FM4001	FM4002	FM4003	FM4004	FM4005	FM4006	FM4007	UNITS
Maximum Repetitive 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 $T_L = 100^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3mm Single Half wave-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Junction Capacitance (NOTE 1)	$C_J$	12							pF
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JL}$	75 30							$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J$ $T_{STG}$	-55 to +150							$^\circ\text{C}$

NOTES :

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts
2. P.C.B. mounted on 0.2x0.2" (5.0x5.0mm)copper pad areas

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### RATING AND CHARACTERISTICS CURVES FM4001 THRU FM4007

Fig. 1 - FORWARD CURRENT DERATING CURVE

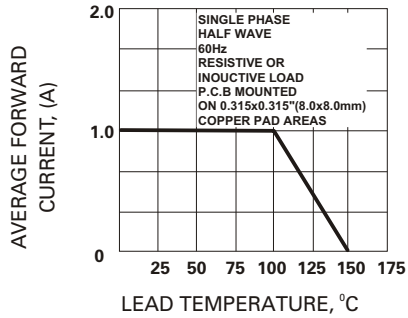


Fig. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

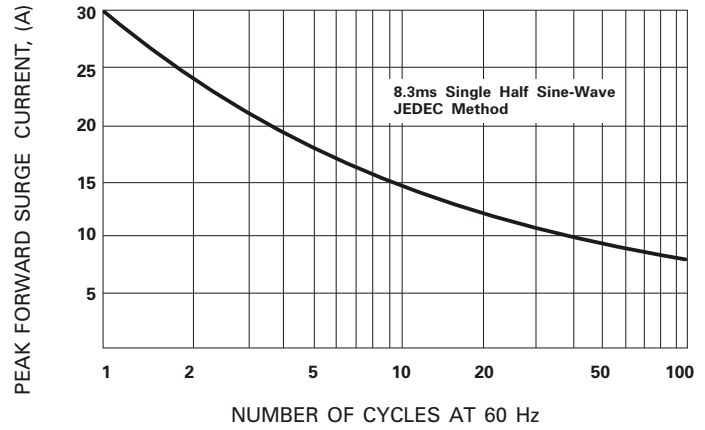


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

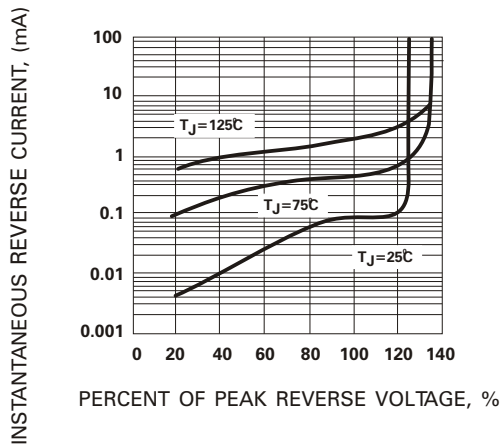


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

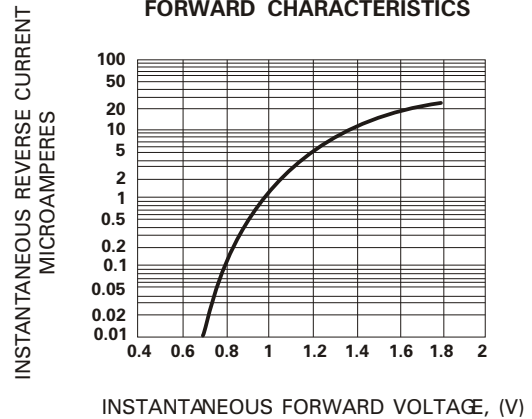


Fig. 5 - TRANSIENT THERMAL IMPEDANCE

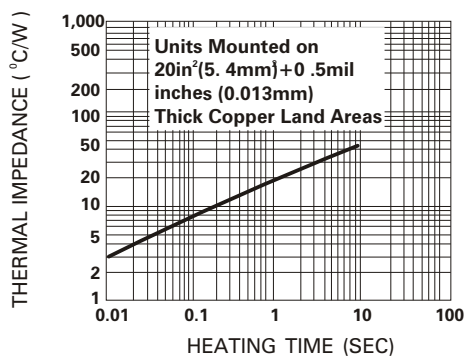


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

