

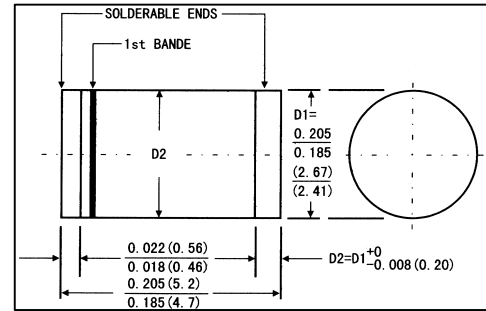
## FEATURES

- . The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- . For surface mounted applications
- . Glass passivated junction
- . High temperature soldering guaranteed: 250°C/10 seconds, at terminals

## MECHANICAL DATA

- . **Case:** JEDEC SMA(DO-214AB) molded plastic
- . **Terminals:** Lead solderable per MIL-STD-750,method 2026
- . **Polarity:** Color band denotes cathode end
- . **Mounting Position:** Any
- . **Weight:** 0.0041 ounce, 0.116 gram

### MELF(DO-213AB)



Dimensions in inches and (millimeters)

## 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%)

	Symbols	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	Units
Maximum Recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T <sub>A</sub> =75°C	I <sub>(AV)</sub>	1.0							Amp
Peak forward surge current (8.3ms half sing wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0							Amps
Maximum instantaneous forward voltage at 1.0 A	V <sub>F</sub>	1.1							Volts
Maximum reverse current at rated DC Blocking Voltage	T <sub>A</sub> =25°C	5.0							μ A
	T <sub>A</sub> =125°C	50.0							
Typical Thermal Resistance	(Note 2) R <sub>θ JA</sub>	75.0							°C/W
	(Note 3) R <sub>θ JL</sub>	30.0							
Typical Junction Capacitance(Note 1)	C <sub>J</sub>	15.0							pF
Maximum DC Blocking Voltage temperature	T <sub>A</sub>	+150.0							°C
Operating and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +175							°C

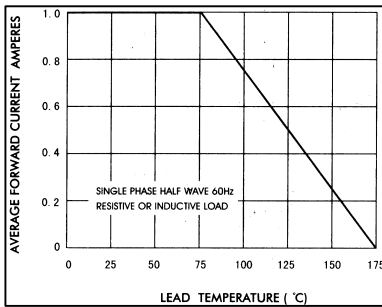
**Notes:** 1.Measured at 1MHz and applied reverse voltage of 4.0V DC.

1.Thermal resistance from junction to ambient, 0.24 X 0.24"(6.0 X 6.0mm) copper pads to each terminals

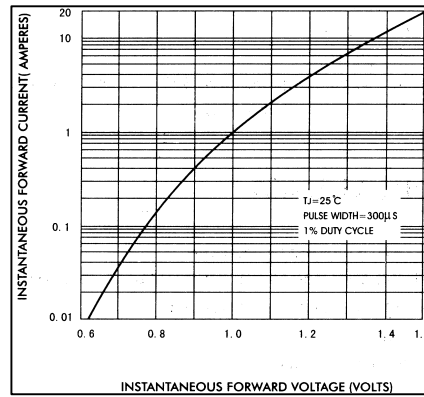
1.Thermal resistance from junction to terminals, 0.24 X 0.24"(6.0 X 6.0mm) copper pads to each terminals

## RATINGS AND CHARACTERISTIC CURVES SM4001 THRU SM4007

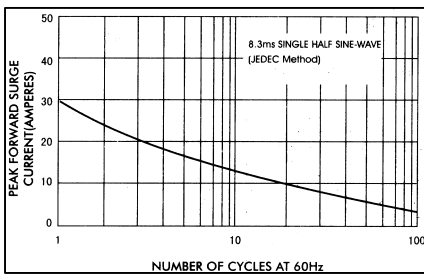
**FIG.1-FORWARD CURRENT DERATING CURVE**



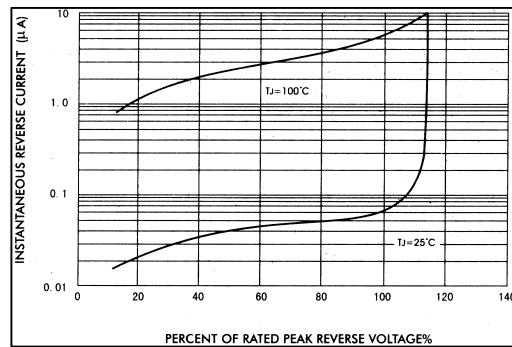
**FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

