

SM4001 THRU SM4007

SURFACE MOUNT GALSS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0Ampere

FEATURES

. The plasitc package carries Underwrites Laboratory

Flammability Classification 94V-0

- . For surface mounted applications
- . Glass passivated junction
- . High temperature soldering guaranteed: 250 $^{\circ}\text{C}/10$ seconds, at terminals

MECHANICAL DATA

. Case: JEDEC SMA(DO-214AB) molded plastic

. Terminals: Lead solderable per MIL-STD-750, method 2026

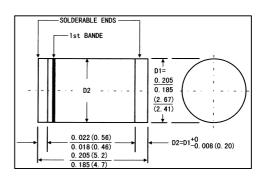
. Polarity: Color band denotes cathode end

load. For capacitive load, derate current by 20%)

. 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)

		Symbols	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	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	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A =75 $^{\circ}$ C		l(AV)	1.0							Amp
Peak forward surge current (8.3ms half sing wave superimposed on rated load (JEDEC method)		lfsm	30.0							Amps
Maximum instantaneous forward voltage at 1.0 A		VF	1.1							Volts
Maximum reverse	T _A =25℃	· I _R	5.0 50.0							μА
current at rated DC Blocking Voltage	T _A =125℃	'R								
Typical Thermal Resistance	(Note 2)	$R_{\theta JA}$	75.0							°C/W
	(Note 3)	R⊕ JL	30.0							
Typical Junction Capacitance(Note 1)		CJ	15.0							pF
Maximum DC Blocking Voltage temperature		T _A	+150.0							$^{\circ}$
Operating and storage temperature range		ТЈ Тѕтс	-65 to +175							$^{\circ}$

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
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RATINGS AND CHARACTERISTIC CURVES SM4001 THRU SM4007

FLG.1-FORWARD CURRENT DERATING CURVE

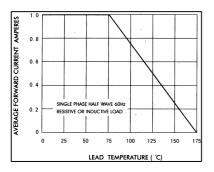


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

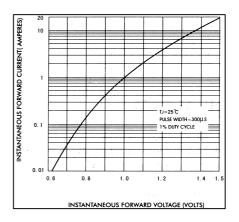


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

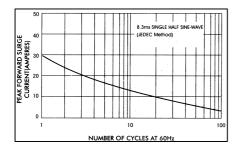


FIG.4-TYPICAL REVERSE CHARACTERISTICS

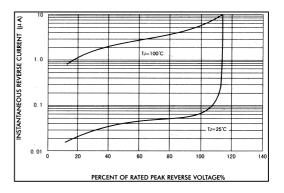


FIG.5-TYPICAL JUNCTION CAPACITANCE

