

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

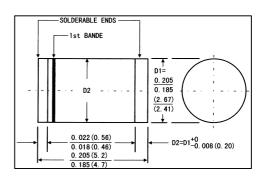
. Terminals: Lead solderable per MIL-STD-750, method 2026

. Polarity: Color band denotes cathode end

. Mounting Position: Any

. Weight: 0.0041 ounce, 0.116 gram

MELF(DO-213AB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

 $(Ratings\ at\ 25^{\circ}C\ ambient\ temperature\ unless\ otherwise\ specified, Single\ phase, half\ wave\ 60\ Hz, resistive\ or\ inductive)$

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

	Syı	mbols	SM 4001	SM 4002	SM 4003	SM 4004	SM 4005	SM 4006	SM 4007	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	,	VDC	50	100	200	400	600	800	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T _A =75°C		l(AV)				1.0				Amp
Peak forward surge current (8.3ms half sing wave superimposed on rated load (JEDEC method)	ı	FSM				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)	$^{2} heta$ JA	75.0							°C/W
	Note 3)	Rθ JL	30.0							
Typical Junction Capacitance(Note 1)		CJ				15.0				pF
Maximum DC Blocking Voltage temperature		T_A				+150.0				$^{\circ}\!\mathbb{C}$
Operating and storage temperature range	TJ	Тѕтс			-	-65 to +17	5			$^{\circ}$

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

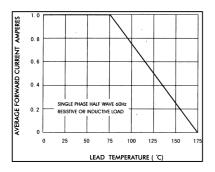


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

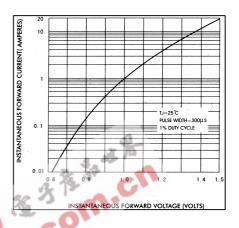


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG.4-TYPICAL REVERSE CHARACTERISTICS

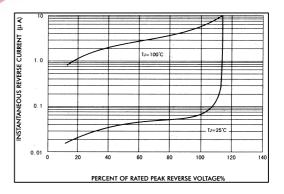


FIG.5-TYPICAL JUNCTION CAPACITANCE

