

I. General Purpose Rectifier

1.0A Surface Mount Silicon Rectifier SM4001~SM4007

(Package: MELF (DO-213AB))

<p>FEATURES</p> <ul style="list-style-type: none"> • Glass passivated device. • Ideal for surface mounted applications. • Low leakage current. • Metallurgically bonded construction. • Mounting position : Any <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Epoxy : Device has UL flammability classification 94V-0. • Polarity : Silver colour Band denotes cathode • Weight : 0.12 gram 	<p>Case: MELF Dimensions in inches and (millimetres)</p>
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Ratings & Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	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	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_a=75$	I_O	1.0							Amps
Peak forward surge current $I_{FM(surge)}$: 8.3ms single half sine-wave superimposed on rated load. (JEDEC Method)	I_{FSM}	30							Amps
Maximum forward voltage at 1.0A	V_F	1.1							Volts
Maximum full load reverse current, full cycle average at $T_a=75$	I_R	30							μA
Maximum DC average reverse current @ $T_a=25$ at rated DC blocking voltage @ $T_a=125$		5.0 50							
Maximum thermal resistance	Rth-JL (2) Rth-JA (3)	20 50							$^{\circ}W$
Typical junction capacitance (1)	C_j	15							PF
Operating and storage temperature range	T_j, T_{stg}	-65 to + 175							

Note :

1. Measured at 1.0 MHz and applied reverse voltage of 4.0VDC

2. Thermal resistance junction to terminal, 6.0mm² copper pads to each terminal.

3. Thermal resistance junction to ambient, 6.0mm² copper pads to each terminal.

Ratings and Characteristic Curves of SM4001~SM4007

