



**International
Semiconductor, Inc.**

SM 4001 THRU SM 4007

TECHNICAL SPECIFICATIONS OF 1.0AMP SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

	<p>VOLTAGE RANGE 50 to 1000 Volts</p> <p>CURRENT 1.0 Ampere</p>
<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 * Weight: 0.015 gram 	<p>SMD-10</p> <p>Dimensions in inches and (millimeters)</p>

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

	SM4001	SM4002	SM4003	SM4004	SM4005	SM4006	SM4007	
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_A = 75^\circ\text{C}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Forward Voltage at 1.0A	1.1							V
Maximum Full Load Reverse Current Full Cycle Average	30							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage	5							μA
								@ $T_A = 25^\circ\text{C}$
	@ $T_A = 125^\circ\text{C}$	50	μA					
Typical Junction Capacitance (Note 1)	15							pF
Maximum Thermal Resistance	20							$^\circ\text{C}/\text{W}$
	$R_{\theta\text{JA}}$ (Note 3)	50	$^\circ\text{C}/\text{W}$					
Storage and Operating Temperature Range T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0v D.C.

2. Thermal resistance junction to terminal 6.0mm³ copper pads to each terminal.

3. Thermal resistance junction to terminal 6.0mm³ copper pads to each terminal.

RATING AND CHARACTERISTIC CURVE SM4001 THRU SM4007

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FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE.

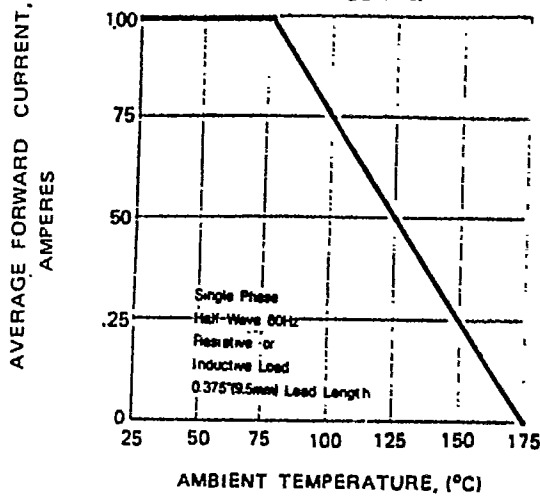


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT.

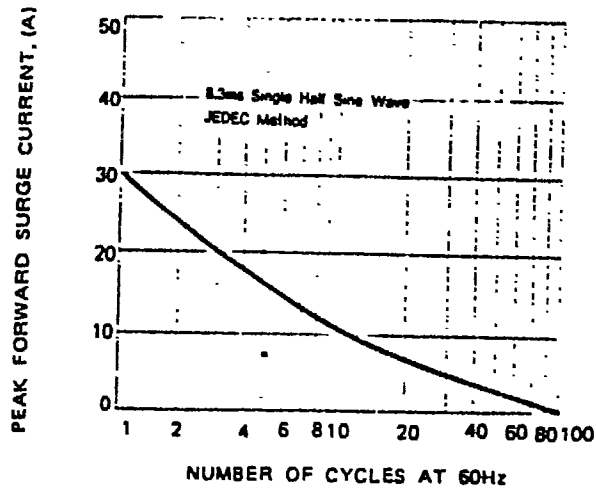


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS.

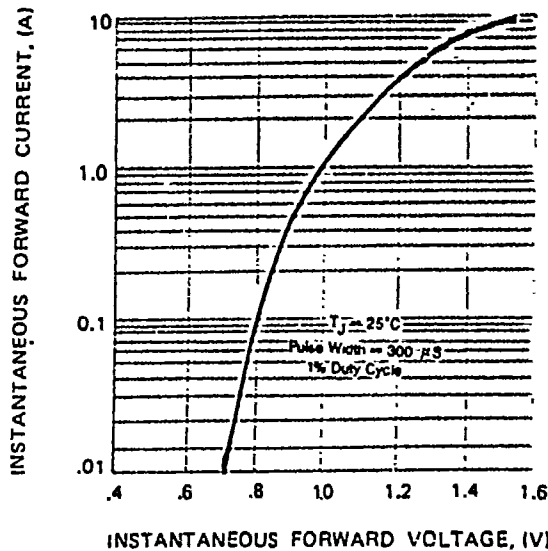
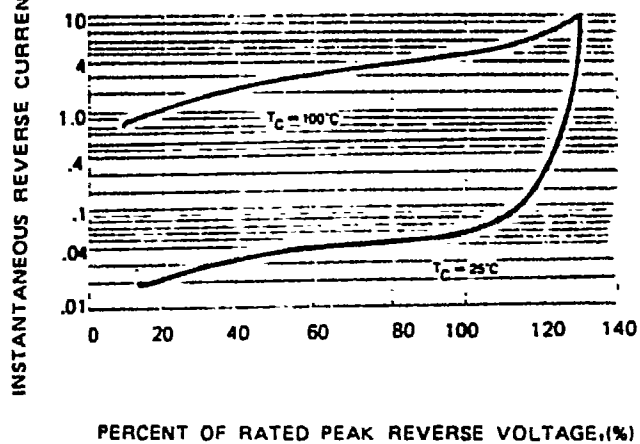


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

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