

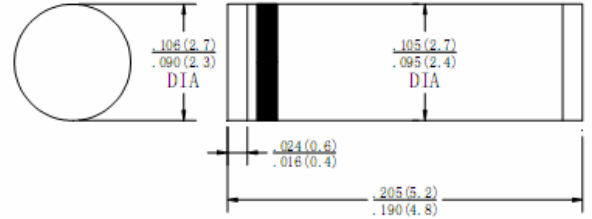
SM4001 THRU SM4007

1.0AMP. Surface Mount Glass Passivated Silicon Rectifiers Voltage Range 50 to 1000 Volts Current 1.0 Amperes

FEATURES

- ◆ Plastic package has carries underwriters Laboratory flammability classification 94V-0
- ◆ Surge overload rating to 30 Amperes peak
- ◆ Ideal for printed circuit board.
- ◆ Reliable low cost construction utilizing molded plastic technique results in in-expensive product.
- ◆ High temperature soldering guaranteed:
260°C / 10 seconds at terminals

MELF



Dimensions in in inches and (millimeters)

Mechanical Data

- ◆ Solderability per MIL-STD-750, method 208 at terminals.
- ◆ Mounting position: Any
- ◆ Weight: 0.12 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave,60Hz,resistiver or inductive load.

For capacitive load, derate current by 20%

Type Number	SYMBOL	SM4001	SM4002	SM4003	SM4004	SM4005	SM4006	SM4007	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA = 75°C	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @1.0A	V_F	1.1							V
Maximum DC Reverse Current @ TA=25°C at rated DC blocking voltage @ TA=125°C	I_R	5.0 100							μA
Typical Thermal Resistance (Note)	$R_{\theta JA}$	50							°C/W
Operating Temperature Range	T_J	-65 to + 150							°C
Storage Temperature Range	T_{STG}	-65 to + 150							°C

NOTE: Thermal Resistance from Junction to case. Mount on 0.2" x 0.2" Cu-pad on P.C.B.

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RATING AND CHARACTERISTIC CURVES SM4001 THRU SM4007

FIG. 1- MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

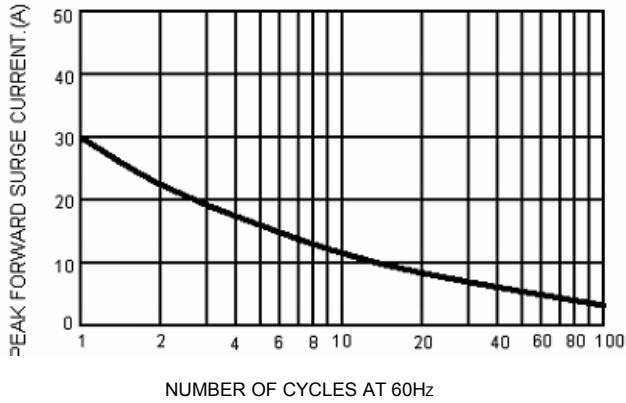


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

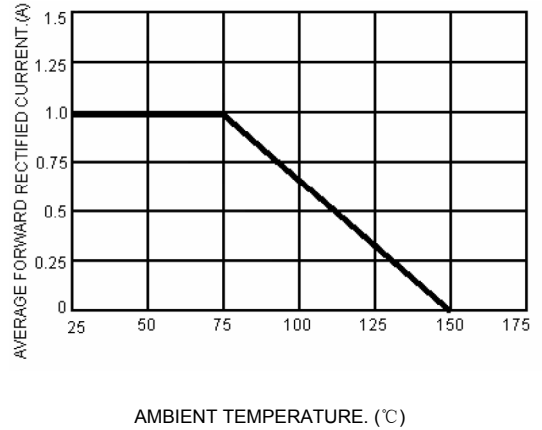


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

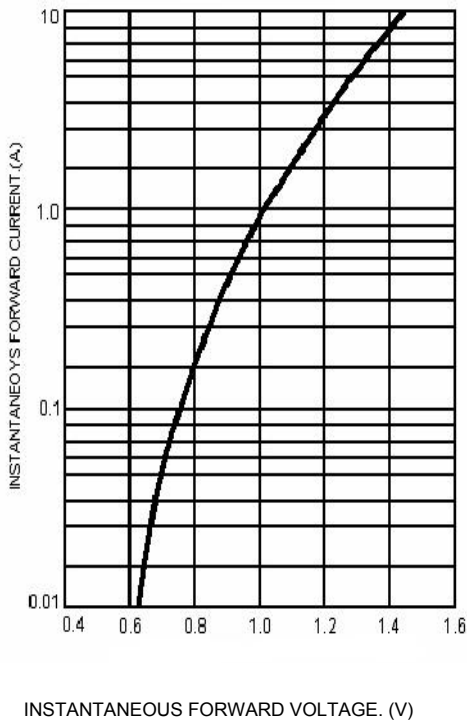
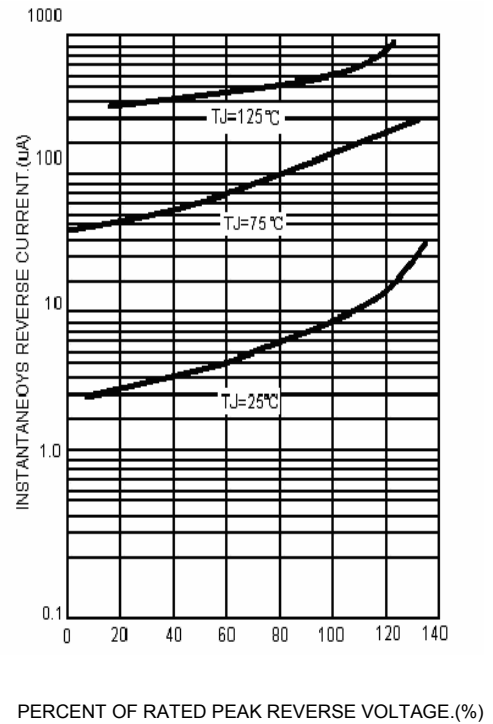


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice.