

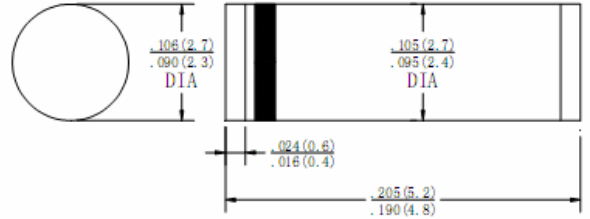
SM4001 THRU SM4007

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

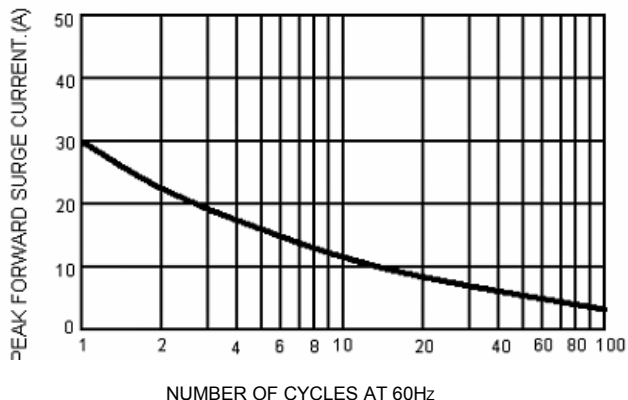


FIG. 2- MAXIMUM FORWARD CURRENT DERATING CURVE

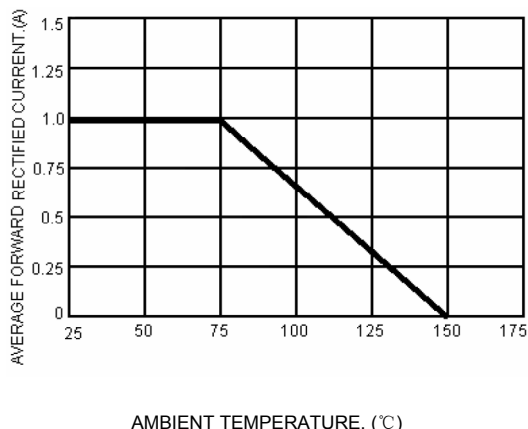


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

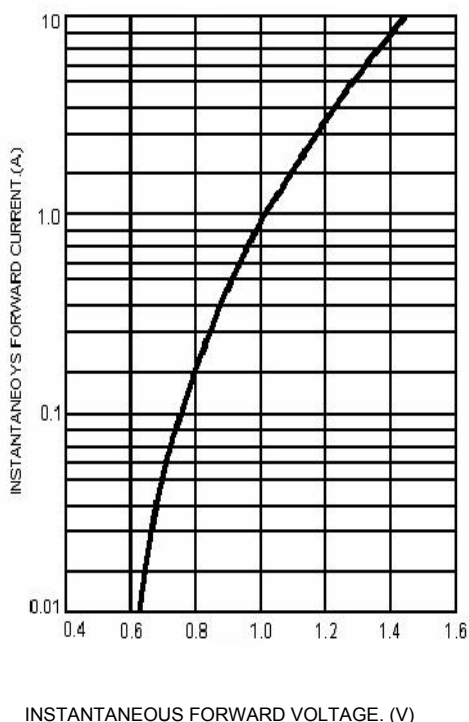
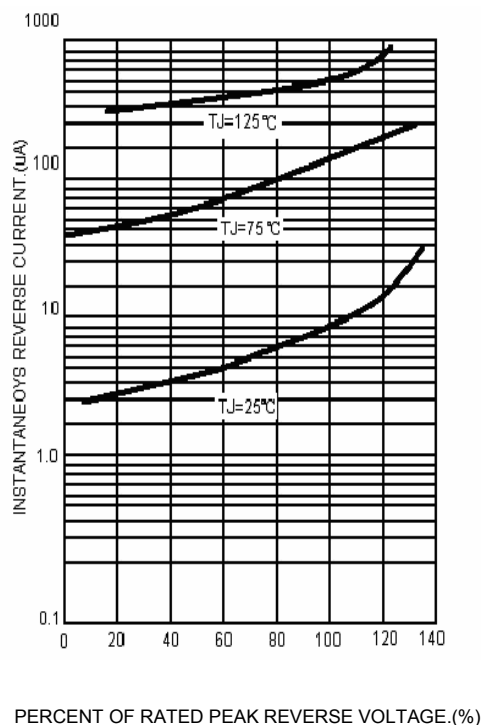


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



Note: Specifications are subject to change without notice.