Kingtronics®

# 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.

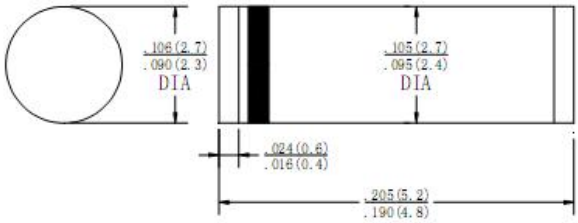
Reliable low cost construction utilizing molded

plastic technique results in in-expensive product.

High temperature soldering guaranteed:

260℃ / 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℃ 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 | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current @TA = 75℃ | IF(AV) | | | | 1.0 | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | | | | 30 | | | | A |
| Maximum Instantaneous Forward Voltage @1.0A | VF | | | | 1.1 | | | | V |
| Maximum DC Reverse Current @ TA=25℃<br>at rated DC blocking voltage @ TA=125℃ | IR | | | | 5.0<br>100 | | | | μA |
| Typical Thermal Resistance (Note ) | RθJA | | | | 50 | | | | ℃/W |
| Operating Temperature Range | TJ | | | | -65 to + 150 | | | | ℃ |
| Storage Temperature Range | TSTG | | | | -65 to + 150 | | | | ℃ |

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

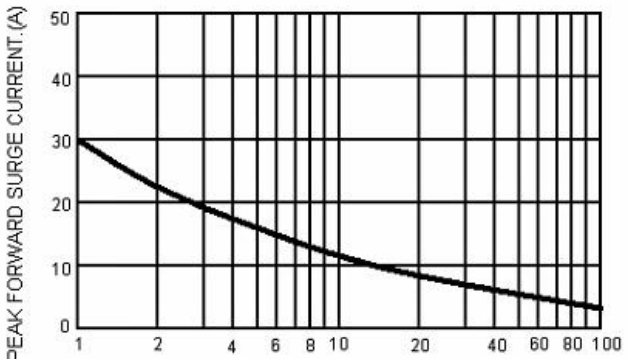



FIG. 2-MAXIMUM FORWARD CURRENT DERATING CURVE

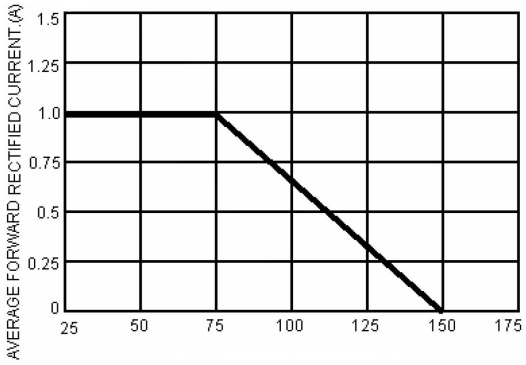



FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

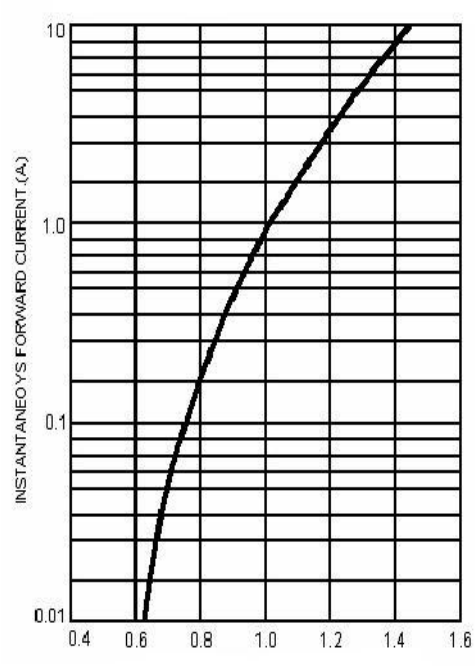
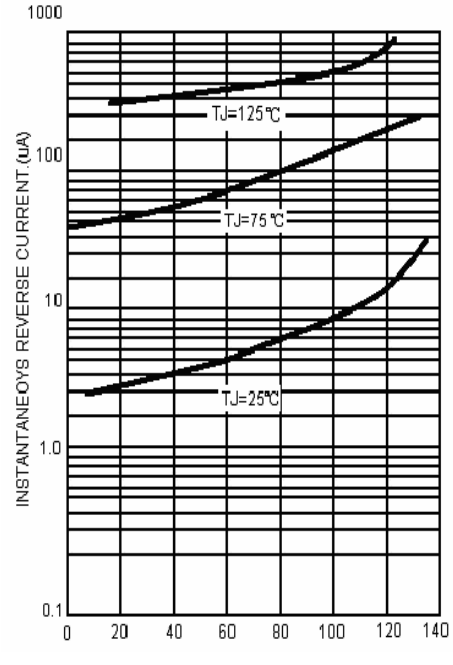



FIG. 4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT




Note: Specifications are subject to change without notice.