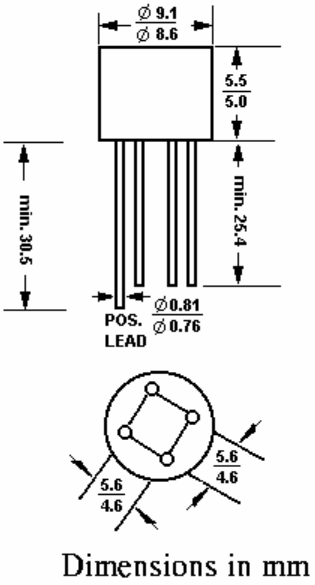
2W005M THRU 2W10M

SINGLE-PHASE SILICON BRIDGE RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 2.0 Amperes



Dimensions in mm

Features

- Surge overload ratings to 50 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High temperature soldering guaranteed: 250oC/10 seconds/0.375”(9.5mm) lead length at 5 lbs., (2.3kg) tension.

Mechanical Data

- **Case:** Molded plastic
- **Lead:** Solder plated
- **Polarity:** As marked

Absolute Maximum Ratings and Characteristics

Rating at 25^{O}C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	2W 005M	2W 01M	2W 02M	2W 04M	2W 06M	2W 08M	2W 10M	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 at T_A = 50 ^{O}C	$I_{(AV)}$	2							A
Peak forward surge current , 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum instantaneous forward voltage @ 2A	V_F	1.1							V
Maximum DC reverse current @ T_A = 25 ^{O}C at rated DC blocking voltage @ T_A = 100 ^{O}C	I_R I_R	10 500							uA uA
Typical thermal resistance(Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							^{O}C/W ^{O}C/W
Operating temperature range	T_J	-55 to +125							^{O}C
Storage temperature range	T_S	-55 to +150							^{O}C

Note: (1) Thermal resistance from junction to ambient and from junction to lead at 0.375” (9.5mm) lead length for P.C.B. mounting.

SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103 ISO 14001:2004 Certificate No. 7116 ISO 9001:2000 Certificate No. 0506098

Dated : 26/09/2003

RATINGS AND CHARACTERISTIC CURVES

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

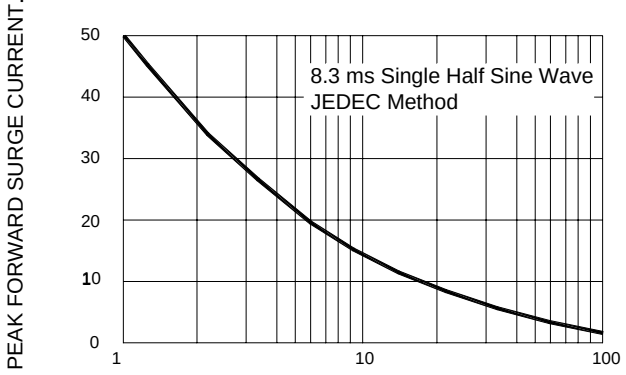


FIG. 2-MAXIMUM CURRENT DERATING CURVE OUTPUT RECTIFIED CURRENT

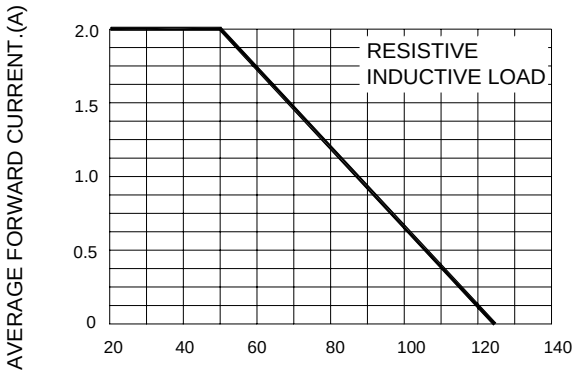


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

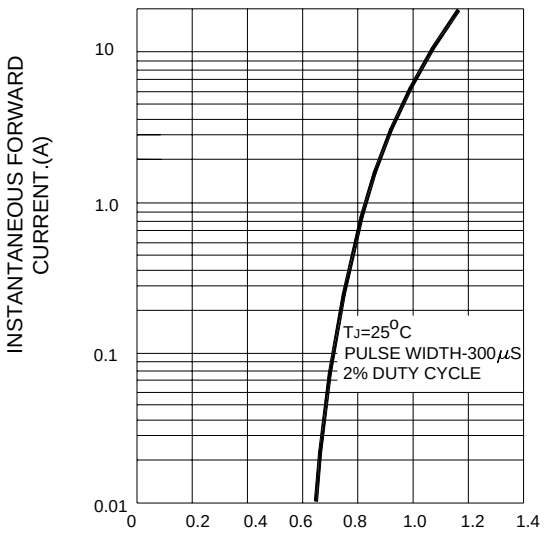


FIG. 4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT