

2W005M THRU 2W10M

Single-phase Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 V

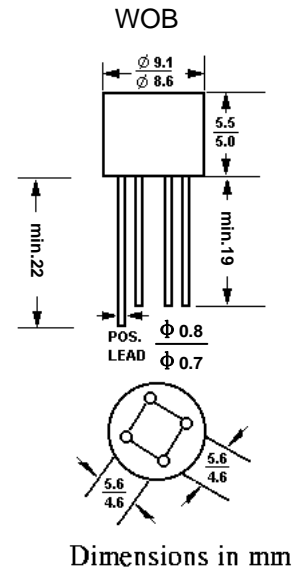
Forward Current - 2 A

Features

- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High temperature soldering guaranteed:
250 °C/10 seconds / 0.375" (9.5 mm) lead length at 5 lbs (2.3kg) tension.

Mechanical Data

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

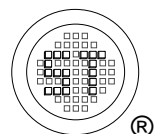


Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	2W005M	2W01M	2W02M	2W04M	2W06M	2W08M	2W10M	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 $T_a = 50^\circ\text{C}$	$I_{F(AV)}$	2							A
Peak Forward Surge Current 8.3 ms 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 $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	10 500							μA
Typical Thermal Resistance ¹⁾	$R_{\theta JA}$	40							$^\circ\text{C/W}$
	$R_{\theta JL}$	15							$^\circ\text{C/W}$
Operating temperature Range	T_j	- 55 to + 125							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150							$^\circ\text{C}$

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



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

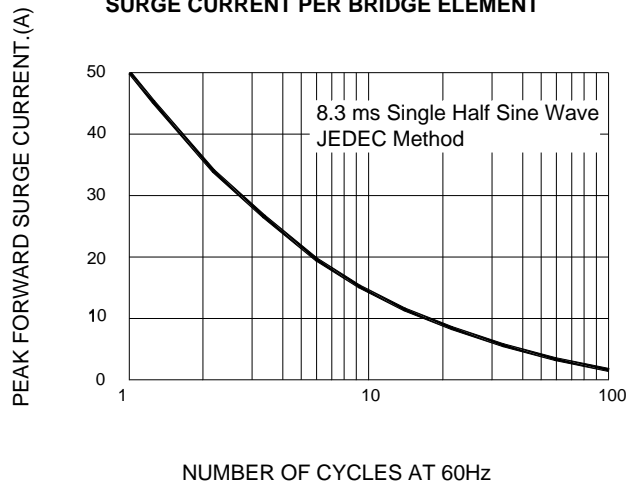


FIG. 2-MAXIMUM CURRENT DERATING CURVE OUTPUT RECTIFIED CURRENT

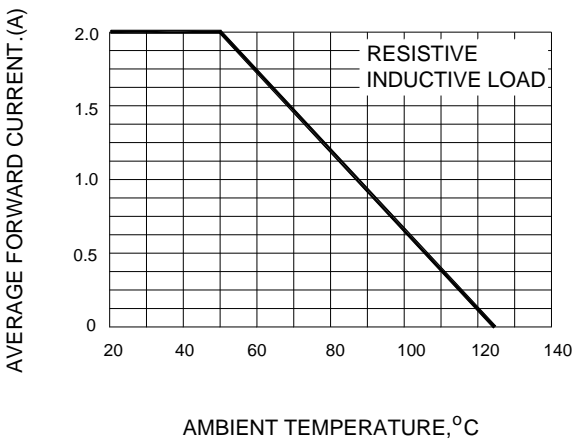


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

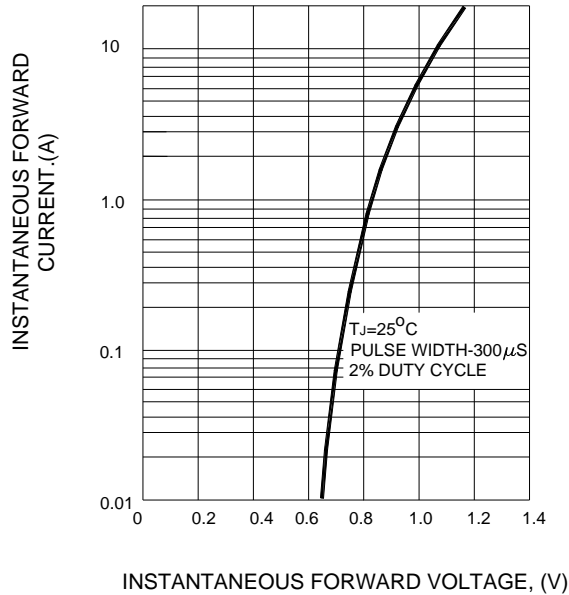


FIG. 4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

