W005G - W10G

GLASS PASSIVATED SINGLE-PHASE SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 1.5 Ampere

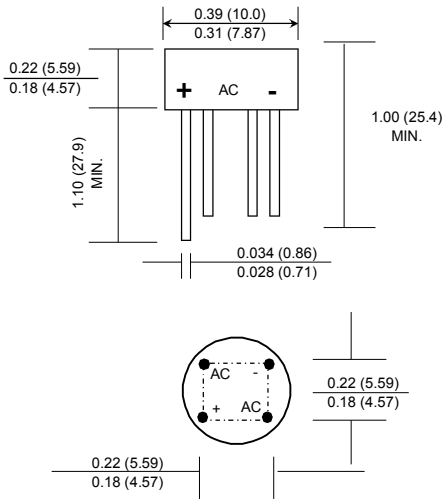
FEATURES :

* Glass passivated chip
* High case dielectric strength
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Ideal for printed circuit board
* Pb / RoHS Free

MECHANICAL DATA :

* Case : Reliable low cost construction utilizing molded plastic technique
* Epoxy : UL94V-0 rate flame retardant
* Terminals : Plated leads solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Polarity symbols marked on case
* Mounting position : Any
* Weight : 1.29 grams

WOB



Dimension in inches and (millimeter)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	W005G	W01G	W02G	W04G	W06G	W08G	W10G	UNIT
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 Current 0.375" (9.5 mm) lead length	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	50							A
Rating for fusing (t < 8.3 ms.)	I^2t	10							A^2S
Maximum Forward Voltage per Diode at I_F = 1.0 A	V_F	1.0							V
Maximum DC Reverse Current Ta = 25 °C	I_R	5							µA
at Rated DC Blocking Voltage Ta = 125 °C	$I_{R(H)}$	0.5							mA
Typical Junction Capacitance per Diode (Note 1)	C_J	14							pf
Typical Thermal Resistance (Note 2)	RθJA	36							°C/W
Operating Junction Temperature Range	T_J	- 50 to + 150							°C
Storage Temperature Range	T_{STG}	- 50 to + 150							°C

Notes :

1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2) Thermal resistance from Junction to Ambient at 0.375" (9.5 mm) lead length P.C. Board mounting.

RATING AND CHARACTERISTIC CURVES (W005G - W10G)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

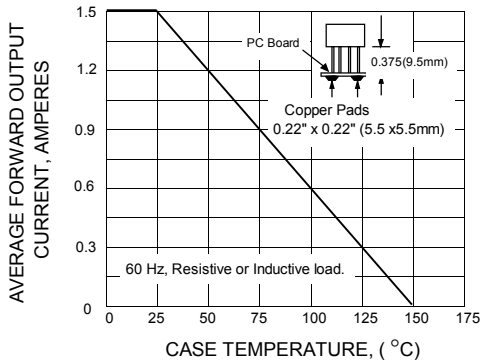


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

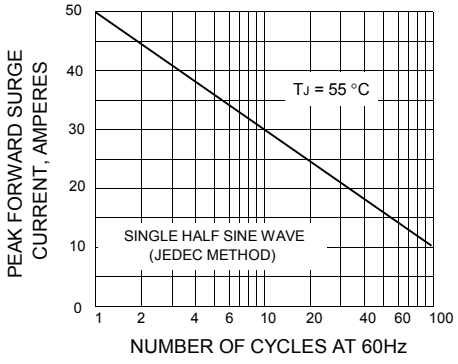


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

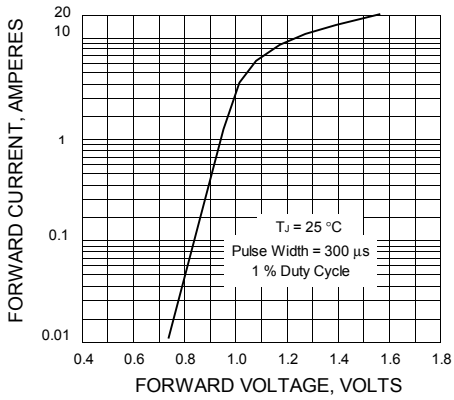


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

