W005M thru W10M

SINGLE-PHASE SILICON BRIDGE

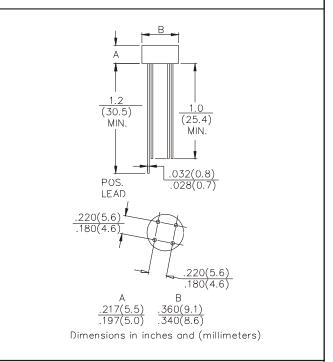




VOLTAGE RANGE 50 TO 1000 VOLTS CURRENT 1.5 Amperes

FEATURES

- High reverse voltage to 1000V
- Surge overload ratings to 50 amperes peak
- Good for printed circuit board assembly
- Mounting position: Any
- Weight: 1.20 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At TA=25°C unless otherwise noted)

ratings	SYMBOLS	W005M	W01M	W02M	W04M	W06M	W80W	W010M	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	٧
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	٧
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	٧
Maximum Average Forward Rectified Current at @ T _A =25°C	Io	1.5							Α
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							А
Operating Temperature Range	T _J	-55 to +125							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

ELECTRICAL CHARACTERISTICS (At TA=25°C unless otherwise noted)

CHARACTERISTICS			W005M	W01M	W02M	W04M	W06M	W80W	W010M	UNITS
Maximum Forward Voltage drop per eleme	aximum Forward Voltage drop per element of 1.0A DC $V_{\scriptscriptstyle F}$			1.0						
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ T _A =25°C	I_R	10							μА
	@ T _A =100°C		1							mA

W005M thru W10M

SINGLE-PHASE SILICON BRIDGE



RATING AND CHARACTERISTICS CURVES W005M THRU W10M

Fig.1 - MAXIMUM NUN-REPETITIVE FORWARD SURGE CURRENT 50 PEAK FORWARD SURGE CURRENT.(A) 40 8.3ms Single Half Sine-Wave (JEDEC Method) 30 20 10 0 4 6 10 20 40 60 100

NUMBER OF CYCLES AT 60 Hz

Fig.2 - TYPICAL FORWARD CURRENT DERATING CURVE 1.6 1.4 AVERAGE FORWARD CURRENT.(A) 1.2 1.0 .8 Single Phase Half Wave 60Hz Inductive or Resistive Load 0 80 20 40 120 140 60 100 AMBIENT TEMPERATURE, (°C)

Fig.3 - TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS

20
10
T_{J=25°C}
- Pulse Width-300 _{JC}s
- 1% Duty Cycle

1.0

2. 4 .6 .8 1.0 1.2 1.4 1.6
INSTANTANEOUS FORWARD VOLTAGE, (V)



Fig.4 - TYPICAL REVERSE CHARACTERISTICS

10

TJ=25°C

TJ=25°C

10

10

10

TJ=25°C

10

PERCENT OF RATED PEAK
REVERSE VOLTAGE. (%)