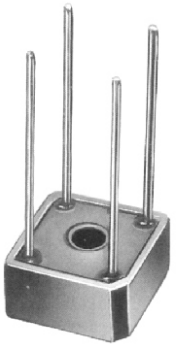
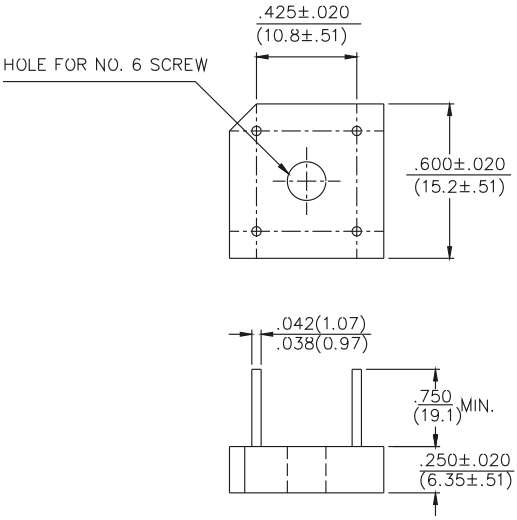
MB1005 thru MB1010 SERIES

SINGLE-PHASE SILICON BRIDGE

CHENG-YI
ELECTRONIC



VOLTAGE RANGE
50 TO 1000 VOLTS
CURRENT
10.0 Amperes



Polarity shown on side of case;
positive lead by beveled corner.

Dimensions in inches and (millimeters)

FEATURES

- UL recognized file #E149311
- Low forward voltage drop
- Surge overload rating-200 amperese peak
- Mounting position:Any
- Mounting:hole thru for #6 screw
- Electrically isolated base-1800Volts
- Weight:7.86 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 T_A=25°C unless otherwise noted)

RATINGS		MB1005	MB101	MB102	MB104	MB106	MB108	MB1010	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input 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 OutputCurrent at: @ T_A=50°C	I_O	10.0							A
@ T_C=100°C		6.0							
@ T_A=50°C		6.0							
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC mehtod)	I_{FSM}	200							A
Operating Temperature Range	T_J	-55 to +125							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

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

CHARACTERISTICS		MB1005	MB101	MB102	MB104	MB106	MB108	MB1010	UNITS
Maximum Forward Voltage drop per element of 5.0A DC	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage per element @ T_A=25°C	I_R	5							μA
@ T_A=100°C		0.2							mA

MB1005 thru MB1010 SERIES

SINGLE-PHASE SILICON BRIDGE

CHENG-YI
ELECTRONIC

RATING AND CHARACTERISTICS CURVES
MB1005 THRU MB1010 SERIES

Fig.1 - MAXIMUM NUN-REPETITIVE FORWARD SURGE CURRENT

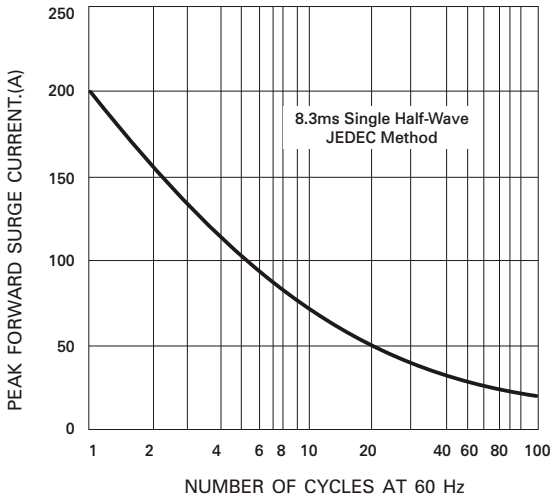


Fig.2 - TYPICAL FORWARD CURRENT DERATING CURVE

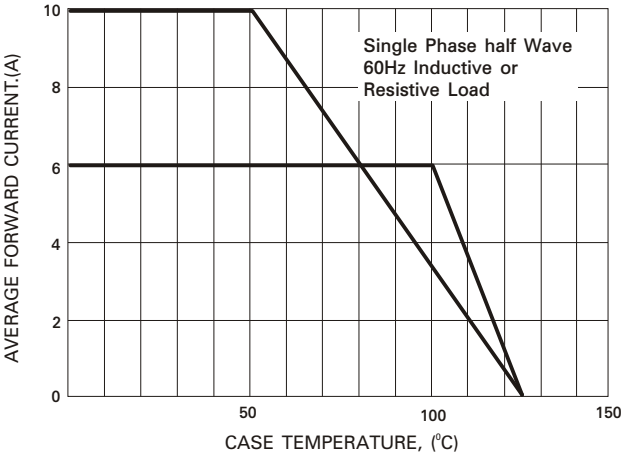


Fig.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

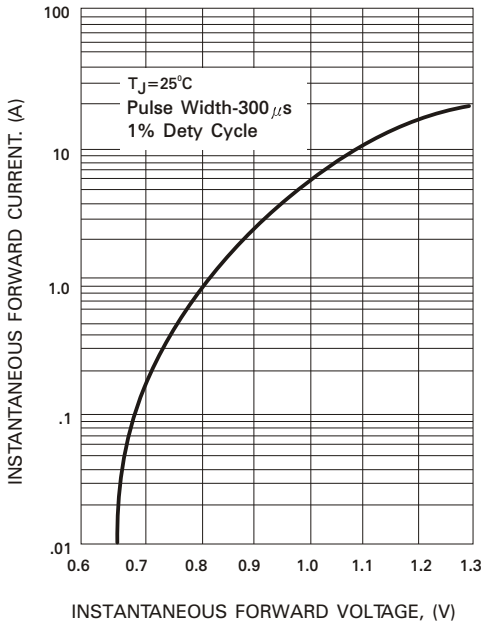


Fig.4 - TYPICAL REVERSE CHARACTERISTICS

