CHENMKO ENTERPRISE CO.,LTD

MINIATURE GLASS PASSIVATED

SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE 200 - 600 Volts CURRENT 1.0 Ampere

MB12LPT

THRU

MB16LPT

Lead free devices

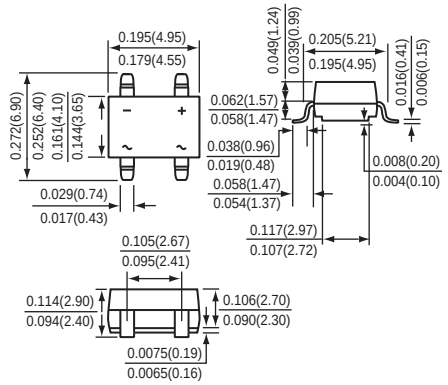
FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Surge overload rating of 40 Amperes peak
* Glass passivated chip junction
* Ideal for printed circuit board
* High temperature soldering guaranteed : 260°C/10 seconds at terminals

MD-S

MECHANICAL DATA

Case: JEDEC MD-S molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on body
Weight: 0.008 ounces, 0.22 gram



Dimensions in inches and (millimeters)

MD-S

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	MB12LPT	MB14LPT	MB16LPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	200	400	600	Volts
Maximum Average Forward Rectified Current T_A = 30°C On glass-epoxy P.C.B.(NOTE 1) On aluminum substrate (NOTE 2)	I_O	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40			Amps
Typical Junction Capacitance (Note 3)	C_J	13			pF
Typical thermal resistance per leg	$R_{\theta JA}$	60			°C / W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150			°C

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

CHARACTERISTICS		SYMBOL	MB12LPT	MB14LPT	MB16LPT	UNITS
Maximum Instantaneous Forward Voltage at 0.5 A DC		V_F	1.0			Volts
Maximum DC reverse current at rated	@ T_A = 25°C	I_R	5.0			uAmps
DC blocking voltage per leg	@ T_A = 125°C		500			uAmps

2002-5

NOTES : 1. On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.27 X 1.27 mm) pads
2. On aluminum substrate P.C.B. with an area of 0.8 x 0.8 x 0.25" (20 x 20 x 6.4mm) mounted on 0.05 x 0.05" (1.27 x 1.27mm) solder pad
3. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts

RATING CHARACTERISTIC CURVES (MB12LPT THRU MB16LPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

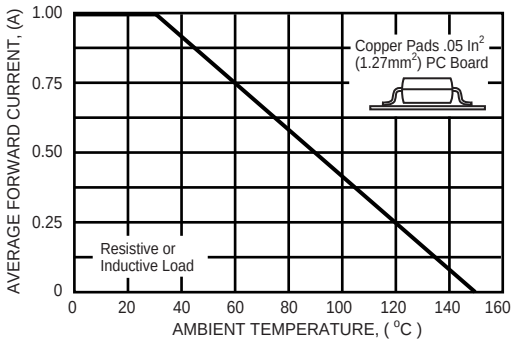


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

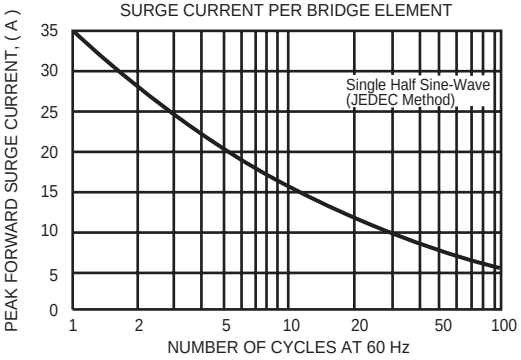


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

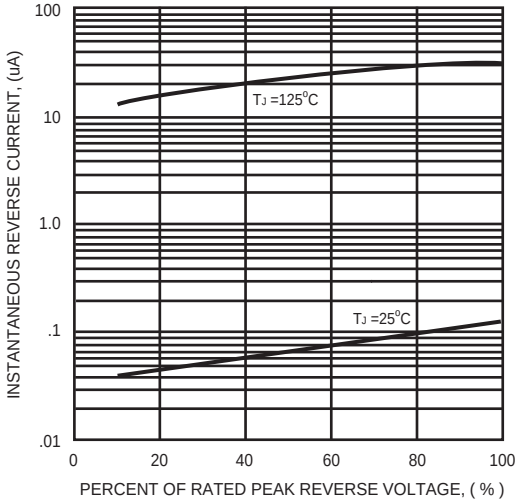


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

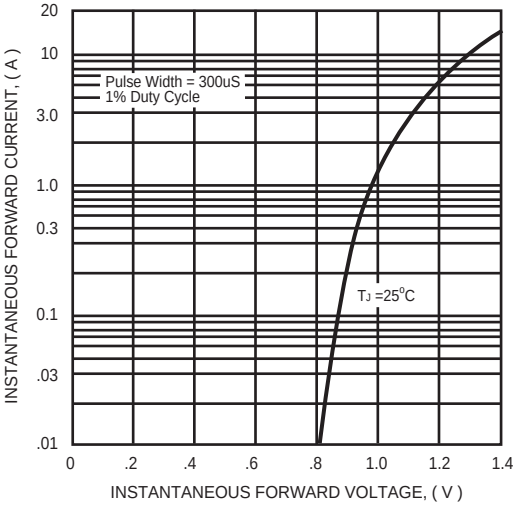


FIG. 5 - TYPICAL JUNCTION CAPACITANCE