



CHENMKO ENTERPRISE CO.,LTD

MINIATURE GLASS PASSIVATED

SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER
VOLTAGE RANGE 200 - 600 Volts CURRENT 0.8 Ampere

MB12SGP

THRU

MB16SGP

Lead free devices

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Surge overload rating of 35 Amperes peak
- * Glass passivated chip junction
- * Ideal for printed circuit board
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

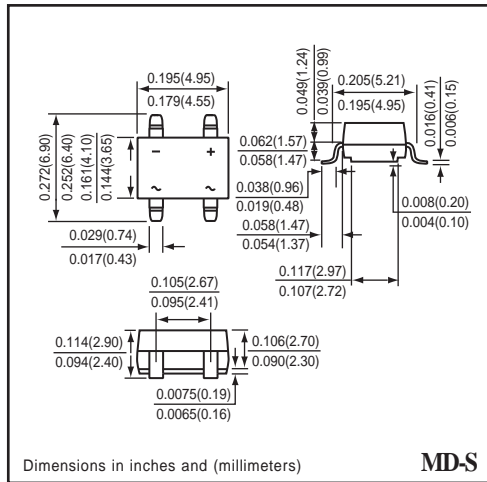
Case: JEDEC MD-S molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on body
Weight: 0.008 ounces, 0.22 gram

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%.



MD-S



MD-S

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

RATINGS	SYMBOL	MB12SGP	MB14SGP	MB16SGP	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 TA = 30°C On glass-epoxy P.C.B.(NOTE 1) On aluminum substrate (NOTE 2)	I _O	0.8			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	35			Amps
Typical Junction Capacitance (Note 3)	C _J	13			pF
Typical thermal resistance per leg	R _{θJA}	70			°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150			°C

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

CHARACTERISTICS	SYMBOL	MB12SGP	MB14SGP	MB16SGP	UNITS
Maximum Instantaneous Forward Voltage at 0.4 A DC	V _F	1.0			Volts
Maximum DC reverse current at rated	I _R	5.0			uAmps
DC blocking voltage per leg					500

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 (MB12SGP THRU MB16SGP)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

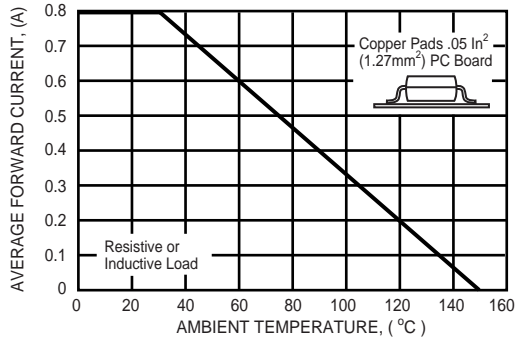


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

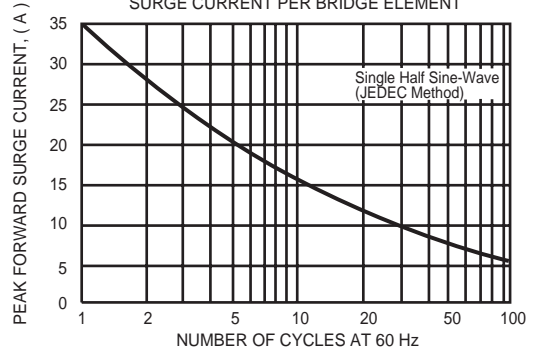


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

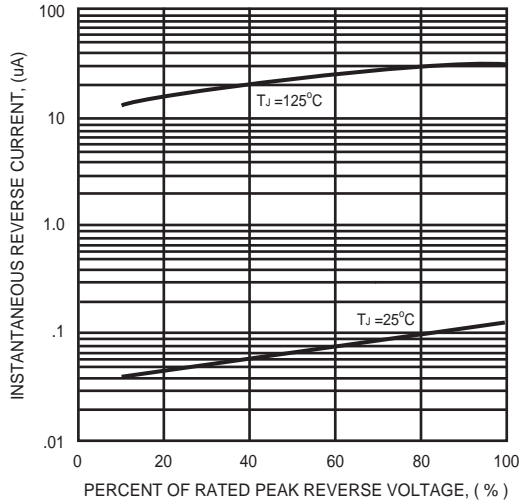


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

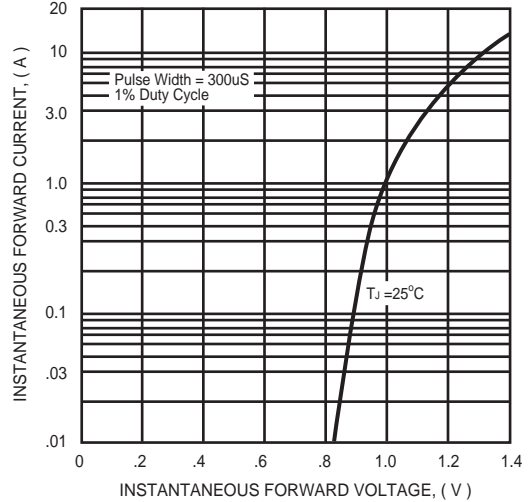


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

