



CHENMKO ENTERPRISE CO.,LTD

MINIATURE GLASS PASSIVATED

SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER
VOLTAGE RANGE 50 - 200 Volts CURRENT 0.5 Ampere

HMB11PT

THRU

HMB13PT

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

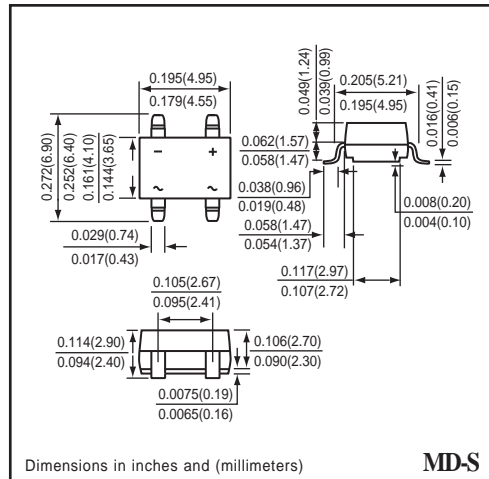
Case: JEDEC MD-S molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on body
Weight: 0.008 ounces, 0.22 gram

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



Dimensions in inches and (millimeters)

MD-S

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

RATINGS	SYMBOL	HMB11PT	HMB12PT	HMB13PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	Volts
Maximum Average Forward Rectified Current TA = 30°C On glass-epoxy P.C.B.(NOTE 1) On aluminum substrate (NOTE 2)	I _O	0.5			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			Amps
Maximum Reverse Recovery Time	T _{RR}	50			nSec
Typical Junction Capacitance (Note 3)	C _J	10			pF
Typical thermal resistance per leg	R _{θJA}	85			°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150			°C

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

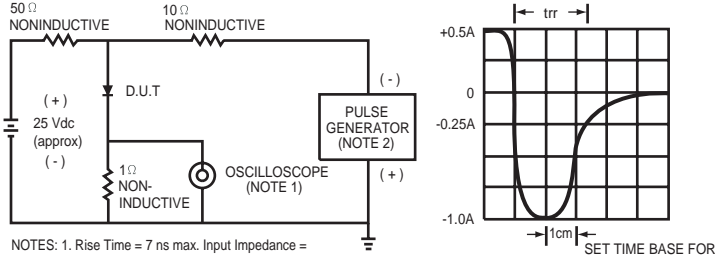
CHARACTERISTICS	SYMBOL	HMB11PT	HMB12PT	HMB13PT	UNITS
Maximum Instantaneous Forward Voltage at 0.5 A DC	V _F	1.1			Volts
Maximum DC reverse current at rated DC blocking voltage per leg	@ TA = 25°C	5.0			uAmps
	@ TA = 100°C	200			uAmps

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

2002-9

RATING CHARACTERISTIC CURVES (HMB11PT THRU HMB13PT)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time = 7 ns max. Input Impedance = 1 megohm, 22 pF.
2. Rise Time = 10 ns max. Source Impedance = 50 ohms.

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

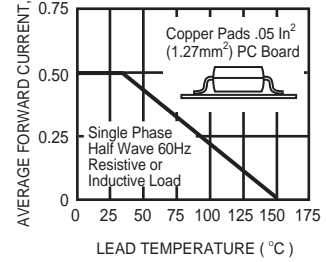


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

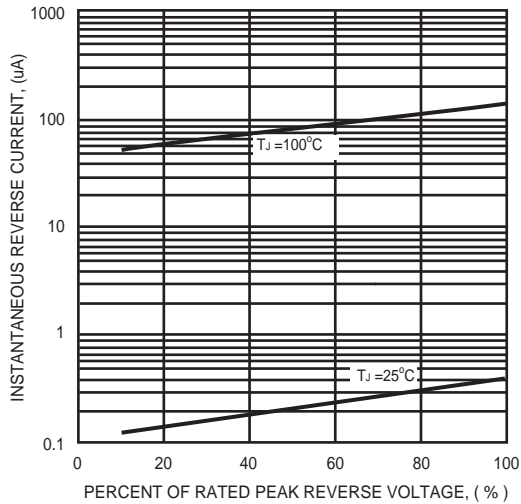


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

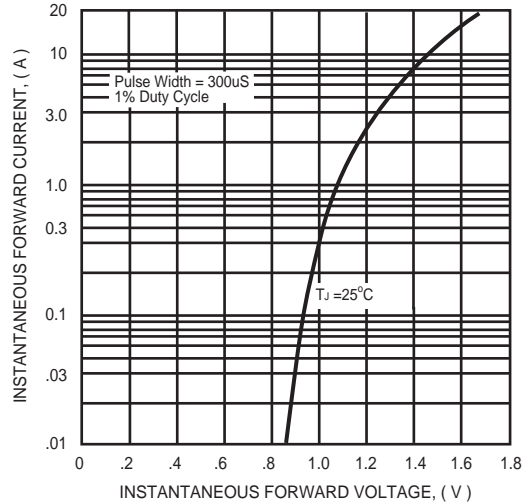


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

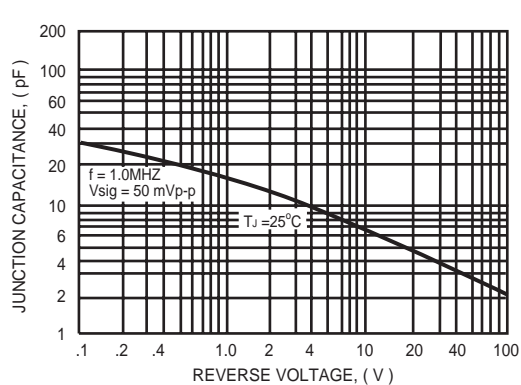


FIG. 6 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER BRIDGE ELEMENT

