HB1A-E THRU HB1M-E

SINGLE PHASE GLASS PASSIVATED SURFACE MOUNT FLAT BRIDGE RECTIFIER

VOLTAGE: 50 to 1000V **CURRENT: 1.0A**

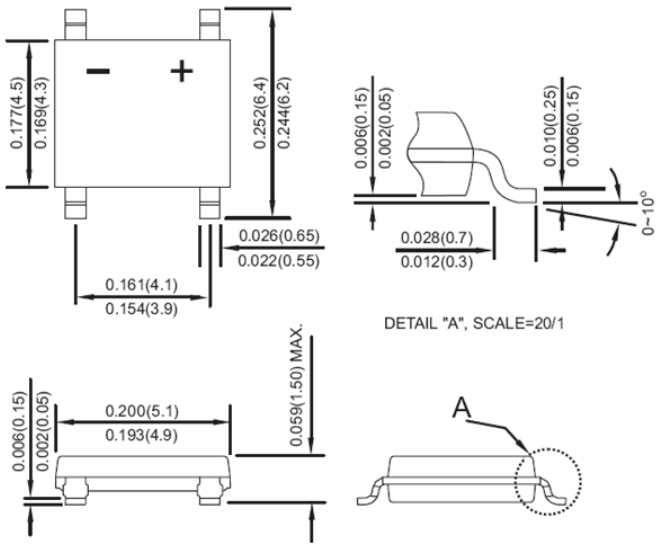
FEATURE

Ideal for printed circuit board
Glass passivated chip
Reliable low cost construction utilizing molded plastic technique
High surge current capability
Small size, simple installation
High temperature soldering guaranteed: 260℃/10 seconds
Halogen Free

MECHANICAL DATA

Terminal: Plated leads solderable per J-STD-002
Case:UL-94 Class V-0 recognized Halogen Free Epoxy
Polarity: Polarity symbol marked on body

LBF



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	Symbol	HB1 A-E	HB1 B-E	HB1 D-E	HB1 G-E	HB1 J-E	HB1 K-E	HB1 M-E	Units
Maximum Recurrent Peak Reverse Voltage	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	Vrms	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current on aluminum substrate	If(av)	1.0							A
Peak Forward Surge Current single half sine-wave / square wave	Ifsm	30@8.3ms / 60@1ms							A
Peak Forward Surge Current at Tj=125℃ single half sine-wave / square wave	Ifsm	25@8.3ms / 50@1ms							A
Maximum Instantaneous Forward Voltage at forward current 0.5A	Vf	0.95							V
Maximum DC Reverse Current at rated DC blocking voltage Ta =25℃ / Ta =125℃	Ir	2.0 / 100.0							μA
Rating for fusing(t＜8.3ms)	I^2t	3.9							A^2sec
Typical Junction Capacitance (Note 1)	Cj	11							pF
Typical Thermal resistance junction to lead / Junction to case / on aluminum substrate	Rth(jl) / Rth(jc) / Rth(ja)	25 / 20 / 62.5							℃/W
Storage and Operating Junction Temperature Range	Tstg, Tj	-55 to +150							℃

Note:
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc

RATINGS AND CHARACTERISTIC CURVES HB1A-E THRU HB1M-E

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

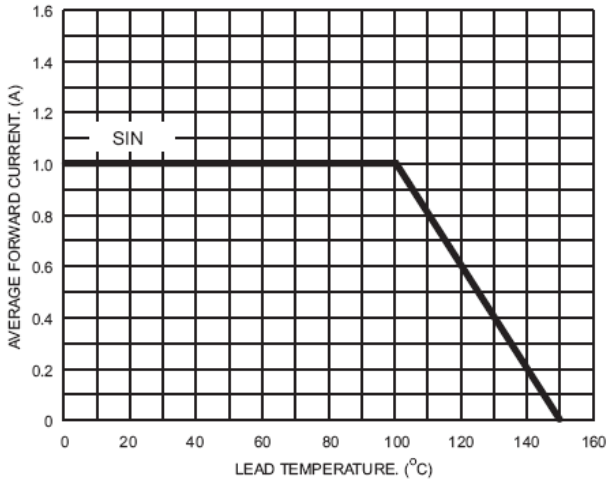


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

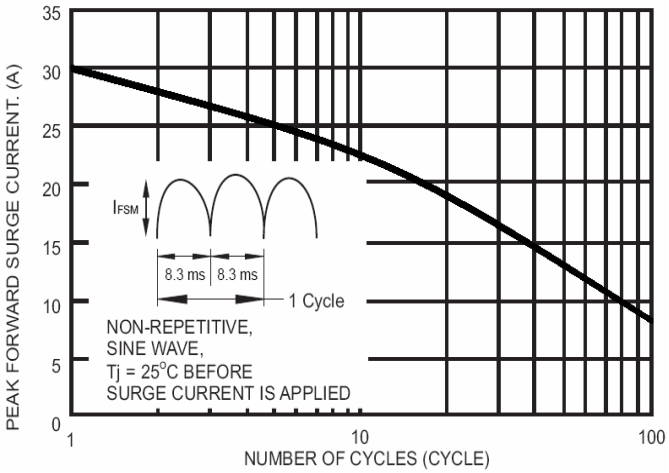


FIG.3- TYPICAL FORWARD CHARACTERISTICS

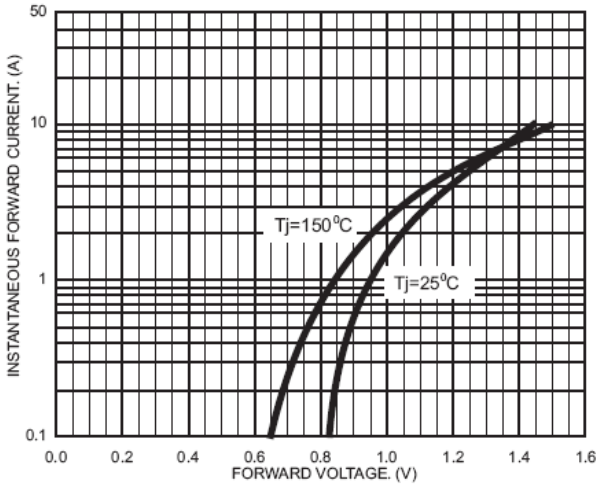


FIG.4- **TYPICAL REVERSE CHARACTERISTICS**

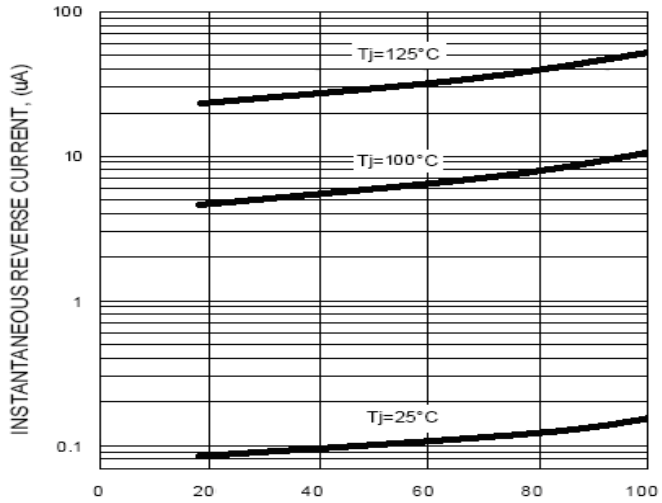


FIG.5- TYPICAL JUNCTION CAPACTITANCE PER LEG