DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

HBL2A THRU HBL2M

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 2.0 Amperes*

FEATURES

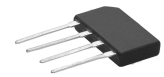
* Ideal for printed circuit board
* Surge overload rating: 50 Amperes peak

MECHANICAL DATA

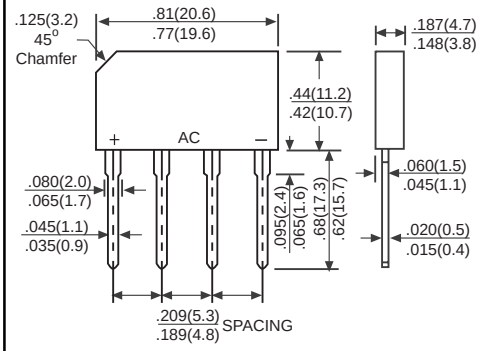
* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any

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%.



HBL



Dimensions in inches and (millimeters)

		SYMBOL	HBL2A	HBL2B	HBL2D	HBL2G	HBL2J	HBL2K	HBL2M	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T_A = 50°C		I_O	2.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	50							Amps
Maximum Forward Voltage Drop per element at 1.0A DC		V_F	1.0							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	@T_A = 25°C	I_R	10							µAmps
	@T_A = 100°C		500							
I^2t Rating for Fusing (t*8.3ms)		I^2t	93							A^2Sec
Typical Junction Capacitance (Note1)		C_J	40							pF
Typical Thermal Resistance (Note 2)		$R\theta_{JA}$	19							°C/W
Operating Temperature Range		T_J	-55 to +150							°C
Storage Temperature Range		T_{STG}	-55 to +150							°C

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts
2.Thermal Resistance from Junction to Case per element Unit mounted on 300x300x1.6mm Aluminum plate heat-sink.

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RATING AND CHARACTERISTIC CURVES (HBL2A THRU HBL2M)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

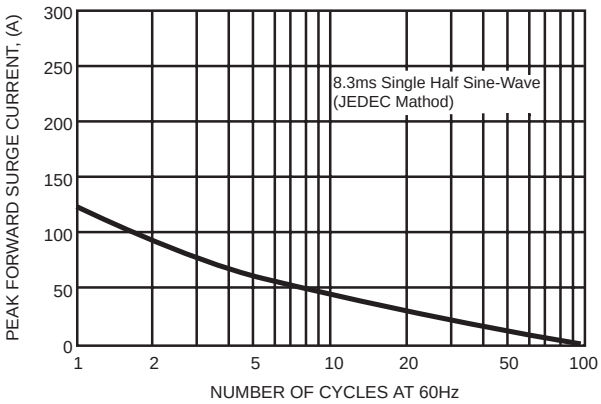

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

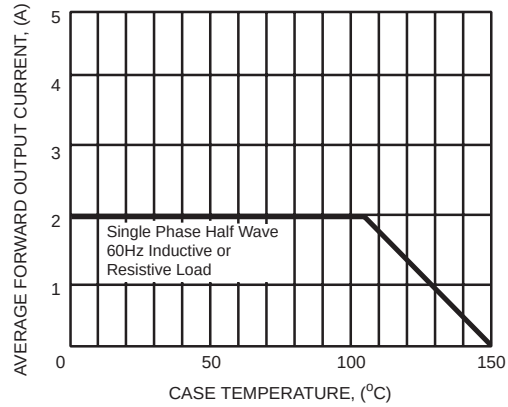

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

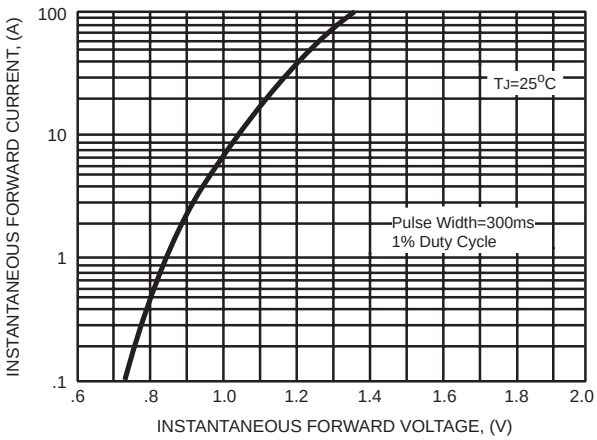

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS