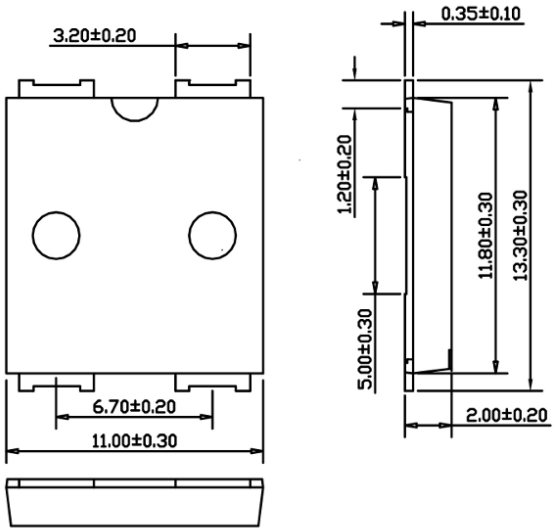
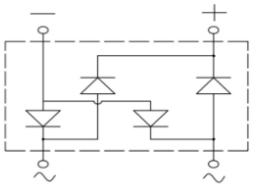
HBL10005 THRU HBL1010

Bridge Recifiters

Package : HBL



Dimensions in millimeters



Features

- Glass passivated junction
- Ideal for printed circuit board application
- High surge current capability
- Meets MSL level1,per J-STD-020, LF maximum peak of 260℃

Typical Applications

General purpose use in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

Mechanical Data

- Package: HBL
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant,Halogen-free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked on body

Maximum Ratings (Ta=25℃ Unless otherwise specified)

Parameter		Symbol	HBL 10005	HBL 1001	HBL 1002	HBL 1004	HBL 1006	HBL 1008	HBL 1010	unit
Maximum repetitive peak reverse voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage		V_{DC}	50	100	200	400	600	800	1000	V
Average rectified output current @60HZ sine wave, R-load, Tc=118℃		I_O	10.0							A
Instantaneous forward voltage drop per diode	I_{FM}=1.0A	V_F	0.81 Typ.				0.85 Max.			V
	I_{FM}=5.0A		0.89 Typ.				0.92 Max.			
	I_{FM}=10.0A		0.94 Typ.				0.98 Max.			
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	300							A
Forward Surge Current (Non-repetitive) @1ms square wave,1 cycle, Tj=25℃			600							
Maximum DC reverse current at ratde TA=25℃		I_R	5							μA
DC blocking voltage per element TA=125℃			100							
Rating for fusing(t<8.3ms)		I^2t	373.5							A^2sec
Thermal resistance	Between Junction and Ambient	R_{eJ-A}	50							℃/w
	Between Junction and Lead	R_{eJ-L}	10							
	Between Junction and Case	R_{eJ-C}	2							
Operating junction and stroage temperature range		$T_{J,}$ T_{STG}	-55to+150							℃

Characteristics (Typical)

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FIG1:Io-Tc Curve

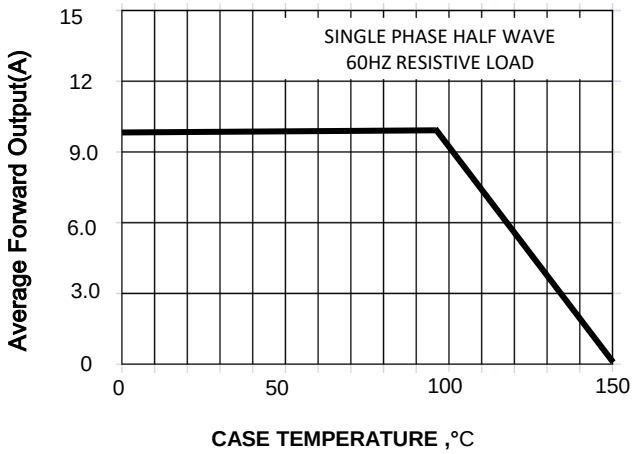

FIG2:Surge Forward Current Capability

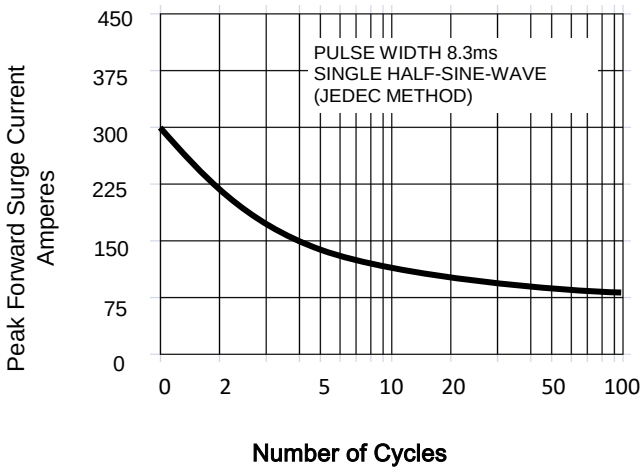

FIG3:Typical Reverse Characteristics

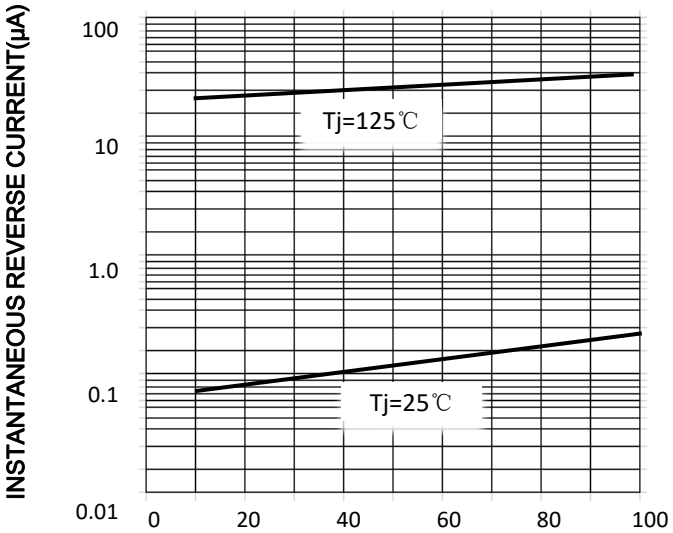

FIG4: Typical Forward Voltage

