



Bridge Recifiters

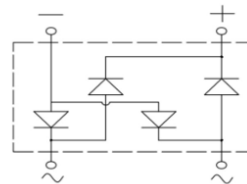
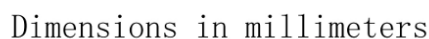
Package : HBL

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°C

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°C Unless otherwise specified)

Parameter		Symbol	HBL 12005	HBL 1201	HBL 1202	HBL 1204	HBL 1206	HBL 1208	HBL 1210	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	12.0							A
Instantaneous forward voltage drop per diode	$I_{FM}=1.0A$	V_F	0.80 Typ.				0.84 Max.			V
	$I_{FM}=6.0A$		0.87 Typ.				0.92 Max.			
	$I_{FM}=12.0A$		0.94 Typ.				0.97 Max.			
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	350							A
Forward Surge Current (Non-repetitive) @1ms square wave,1 cycle, Tj=25℃			700							
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	508.4							A ² sec
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	-55to+150							℃
		T_{STG}								

Characteristics (Typical)

HBL12005 THRU HBL1210

FIG1:Io-Tc Curve

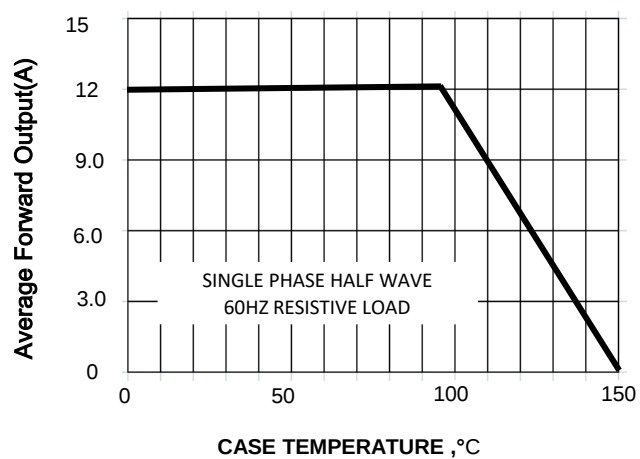


FIG2:Surge Forward Current Capability

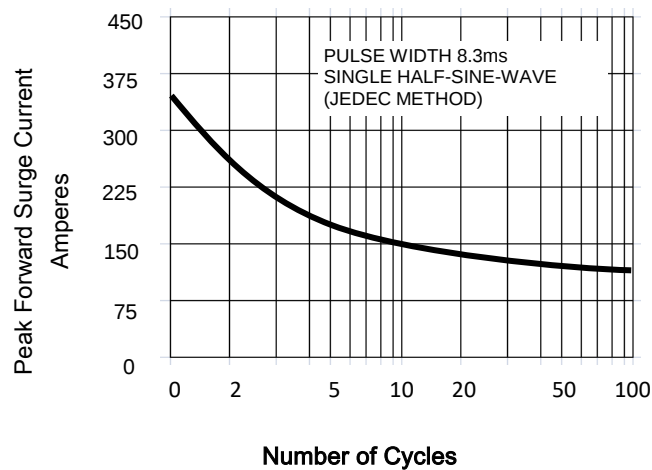


FIG3:Typical Reverse Characteristics

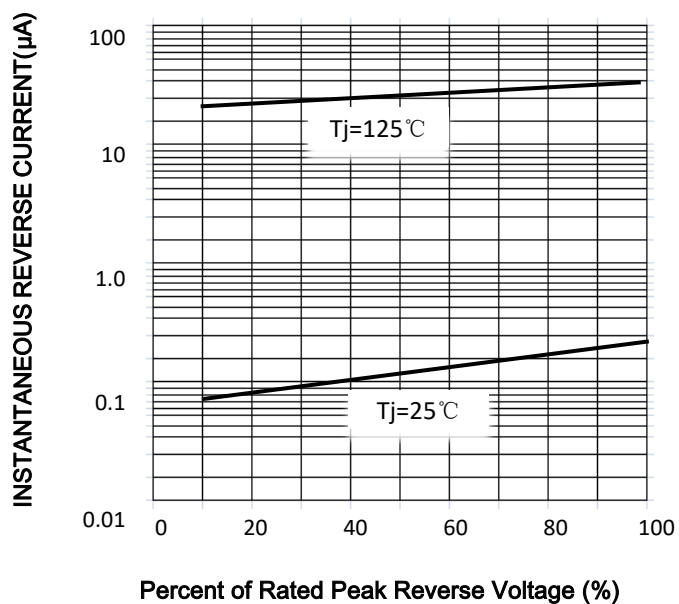


FIG4: Typical Forward Voltage

