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PB305F THRU PB310F

Features

- Mounting Hole For #6 Screw
- Plastic Case
- Any Mounting Position
- Surge Rating Of 50 Amps
- Fast Recovery For High Efficiency

Fast Recovery 3 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

Maximum Ratings

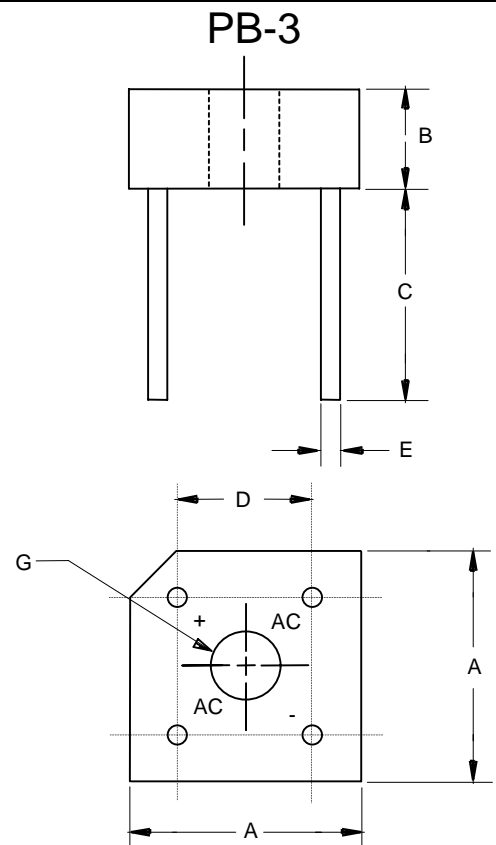
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C

Microsemi Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
PB305F	50V	35V	50V
PB31F	100V	70V	100V
PB32F	200V	140V	200V
PB34F	400V	280V	400V
PB36F	600V	420V	600V
PB38F	800V	560V	800V
PB310F	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	3.0A	$T_C = 50^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	1.3V	$I_{FM} = 1.5\text{A}$ per element; $T_A = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 0.1mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Maximum Reverse Recovery Time PB305F-PB34F PB36F PB38F-PB310F	T_{rr}	150ns 250ns 500ns	$I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

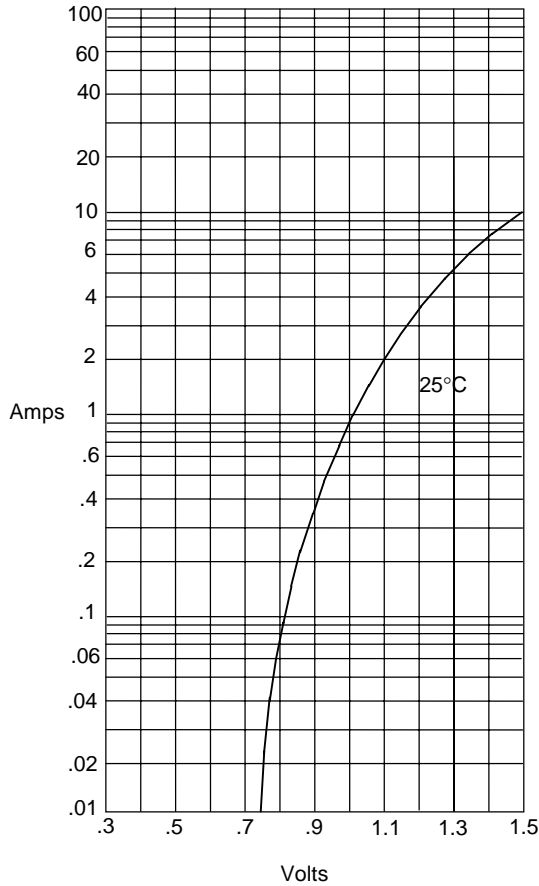


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.610	---	15.50	2PL
B	---	.200	---	5.08	
C	---	.750	---	19.20	
D	.405	.444	10.30	11.30	2PL
E	.030	---	1.00	---	4PL/TYP
G	.145	---	3.70	---	\varnothing

PB305F thru PB310F

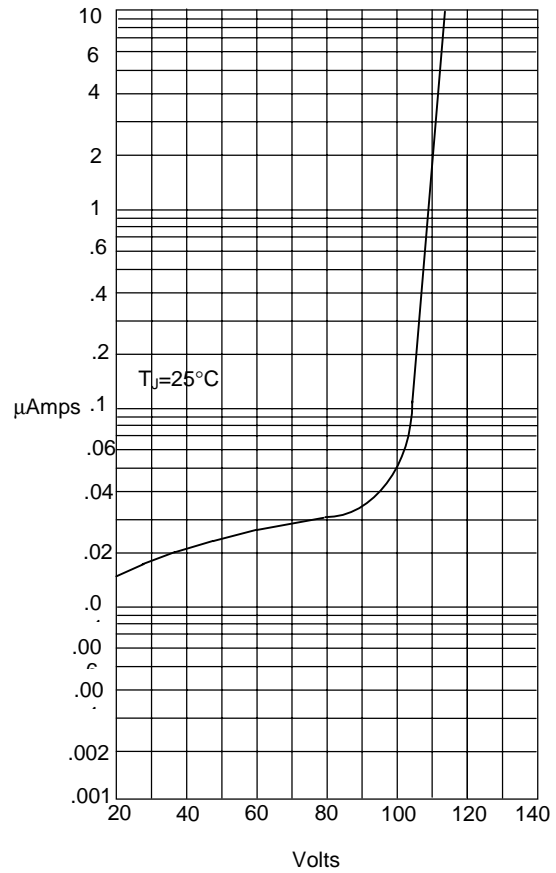


Figure 1
Typical Forward Characteristics



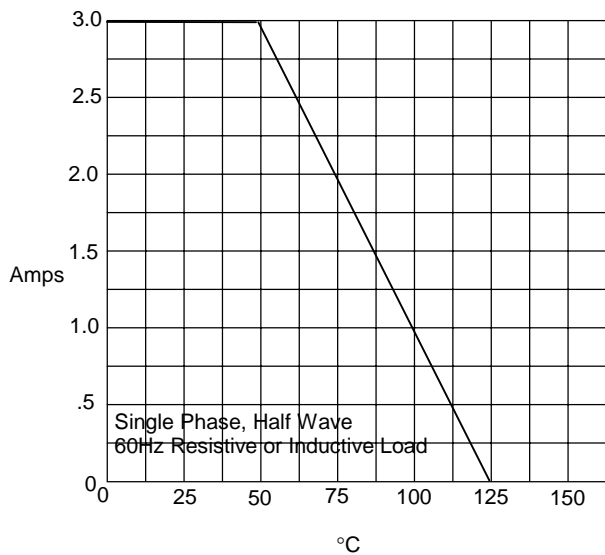
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



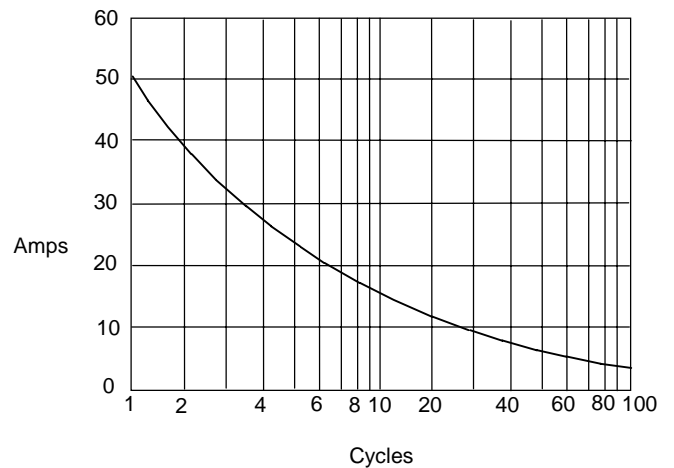
Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 4
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles