Chatsworth, CA
Microsemi
Progress Powered by Technology

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MP1005 THRU MP1010

10 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

Features

- Low Forward Voltage Drop
- Plastic Case With Internal Metal Heat Sink
- Any Mounting Position
- Surge Rating Of 150 Amps

Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C

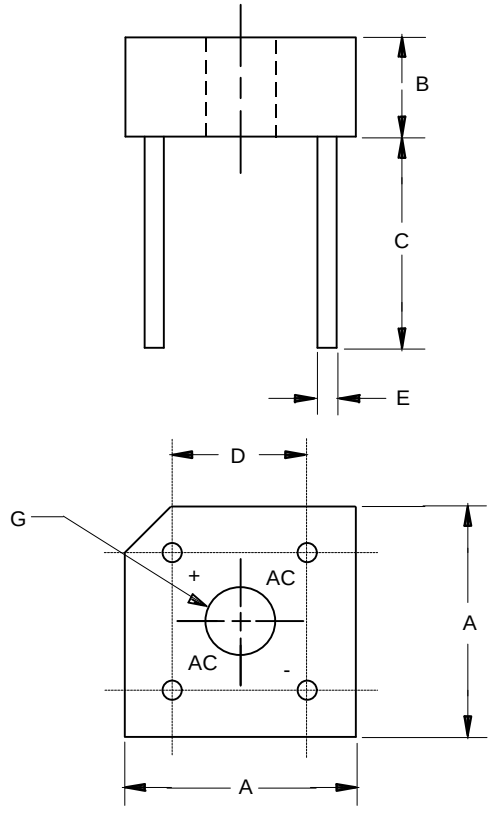
Microsemi Catalog Number	Device Marking	Maximum Reccurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MP1005	MP1005	50V	35V	50V
MP101	MP101	100V	70V	100V
MP102	MP102	200V	140V	200V
MP104	MP104	400V	280V	400V
MP106	MP106	600V	420V	600V
MP108	MP108	800V	560V	800V
MP1010	MP1010	1000v	700V	1000v

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10.0A	T_J = 75°C
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	1.1V	I_{FM} = 5.0A per element; T_A = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10µA 2.0mA	T_A = 25°C T_A = 100°C

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

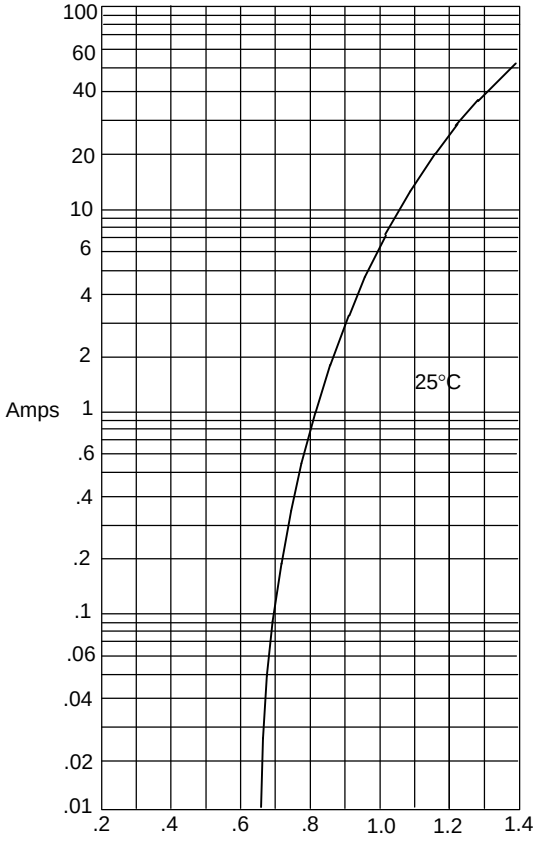
PB-6



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.580	.620	14.70	15.70	2PL
B	.230	.270	5.8	6.9	
C	---	.750	---	19.20	
D	.405	.444	10.30	11.30	2PL
E	.038	.042	.97	1.10	4PL/TYP
G	.145	---	3.70	---	∅

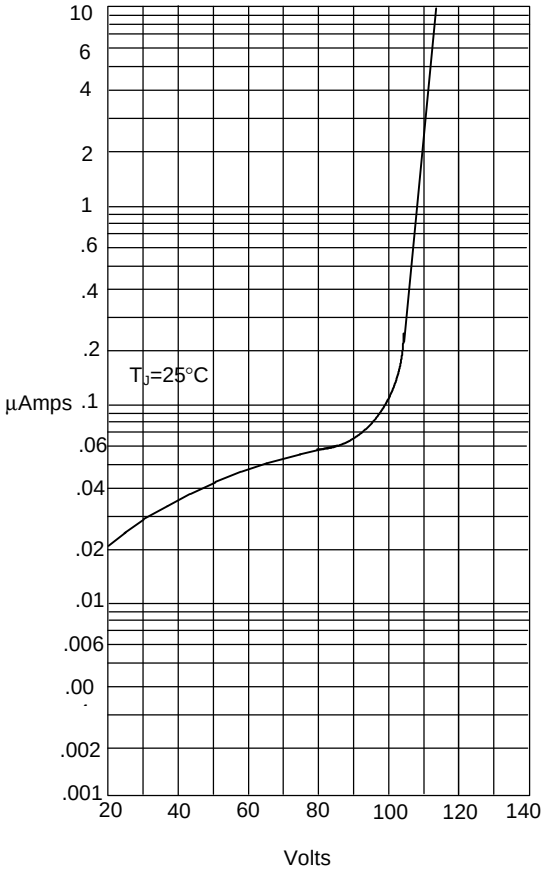
MP1005 thru MP1010

Figure 1
Typical Forward Characteristics



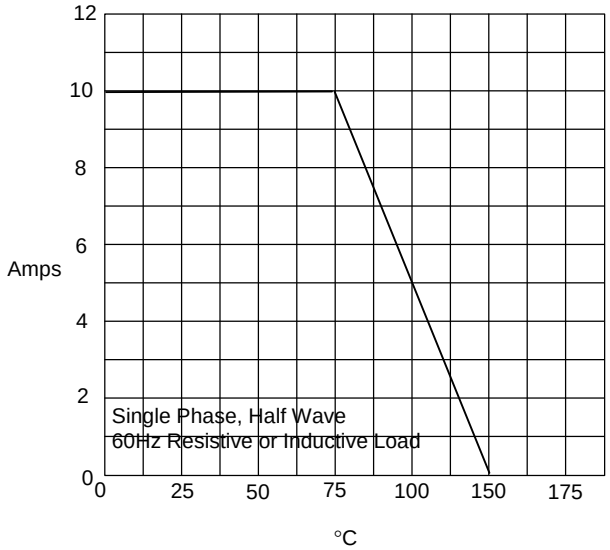
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



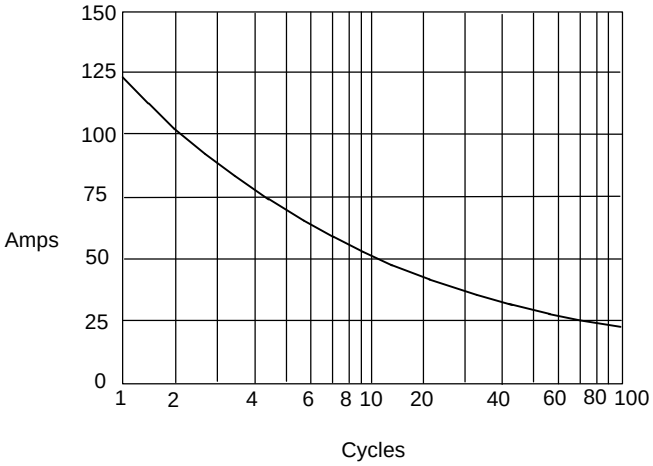
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



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

Figure 4
Peak Forward Surge Current



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