

MP4005 THRU MP4010

Features

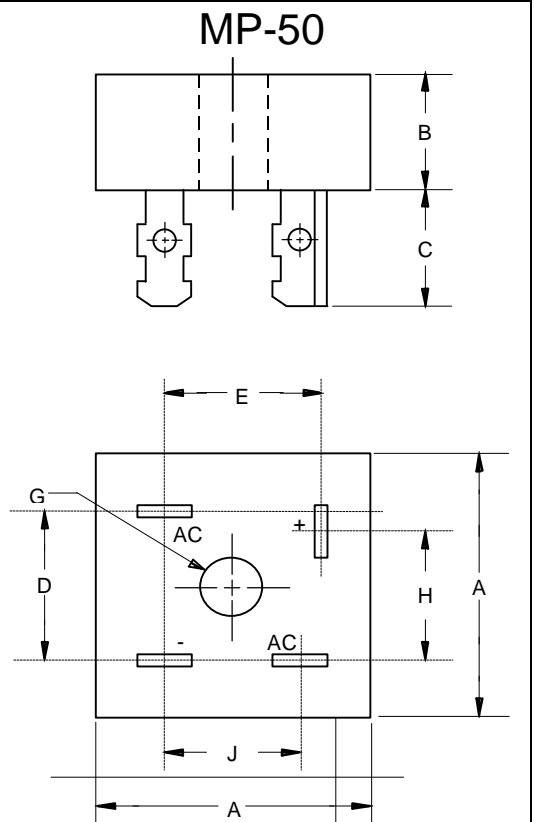
- Mounting Hole For #8 Screw
- Plastic Case With Metal Bottom
- Any Mounting Position
- Surge Rating Of 400 Amps

40 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

Microsemi Catalog Number	Device Marking	Maximum Reccurent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MP4005	MP4005	50V	35V	50V
MP401	MP401	100V	70V	100V
MP402	MP402	200V	140V	200V
MP404	MP404	400V	280V	400V
MP406	MP406	600V	420V	600V
MP408	MP408	800V	560V	800V
MP4010	MP4010	1000v	700V	1000v



Electrical Characteristics @ 25°C Unless Otherwise Specified

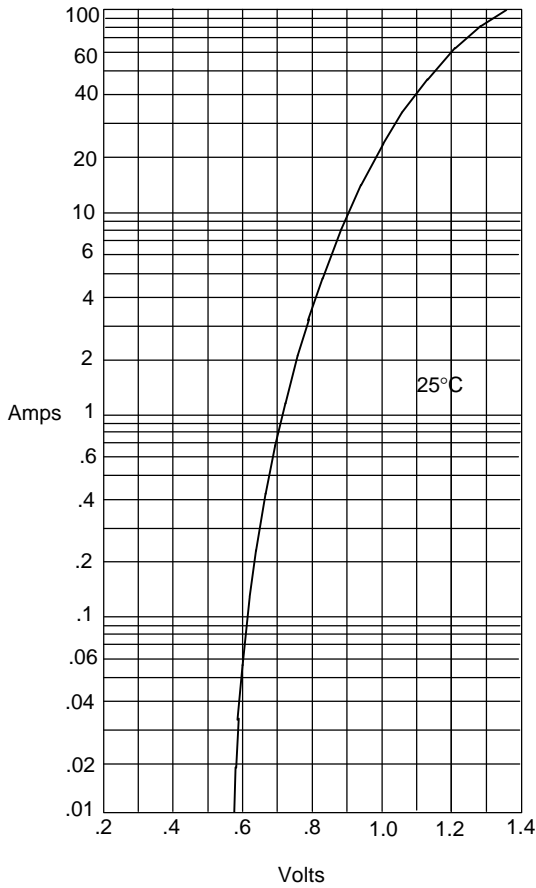
Average Forward Current	$I_{F(AV)}$	40.0A	$T_J = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	400A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	1.2V	$I_{FM} = 20\text{A}$ per element; $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 0.5mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$

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

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	1.140	---	29.00	
B	---	.452	---	11.50	
C	.425	.480	10.80	12.20	
D	.693	.732	17.54	18.6	
E	.637	.677	16.20	17.20	
G	.188	---	4.77	---	∅
H	.633	.673	16.10	17.10	
J	.543	.582	13.80	14.80	

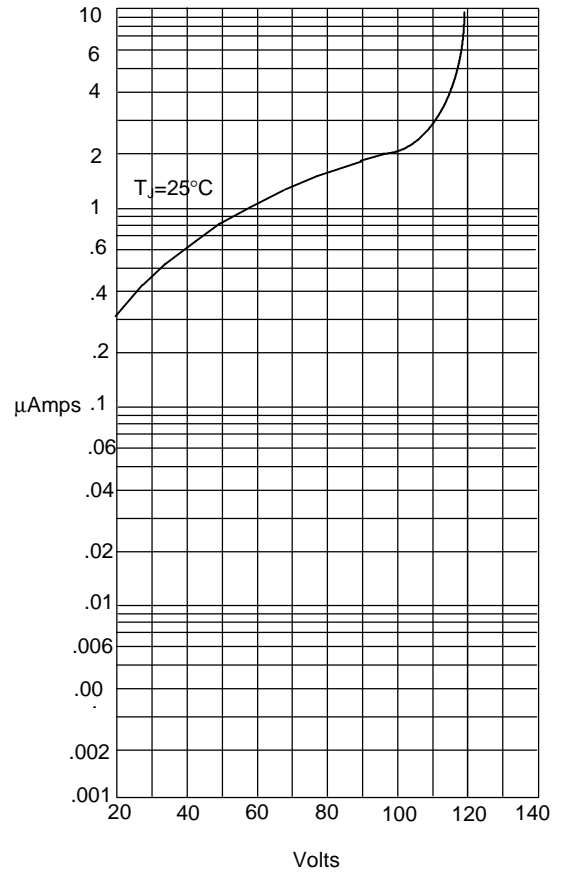
MP4005 thru MP4010

Figure 1
Typical Forward Characteristics



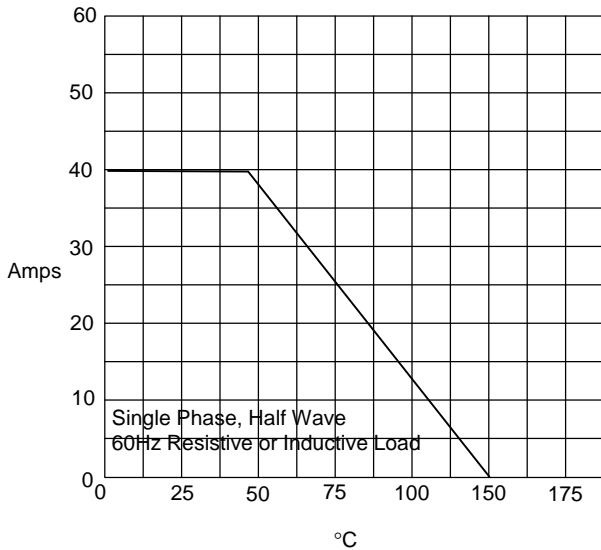
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



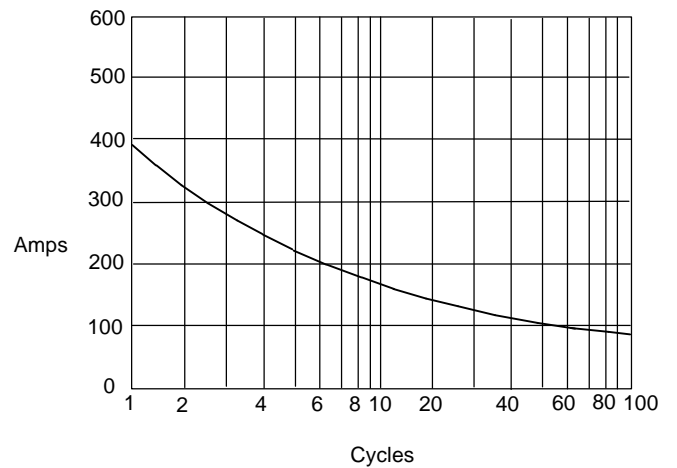
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

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