

**6A05  
thru  
6A10**

**Features**

- Low Cost
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Low Leakage

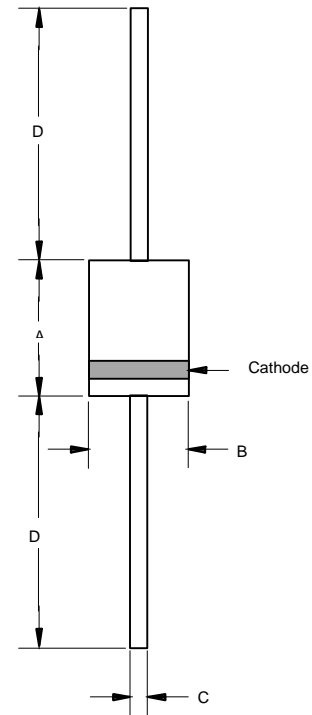
**Maximum Ratings**

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance; 10°C/W Junction To Ambient

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
6A05	---	50V	35V	50V
6A1	---	100V	70V	100V
6A2	---	200V	140V	200V
6A4	---	400V	280V	400V
6A6	---	600V	420V	600V
6A8	---	800V	560V	800V
6A10	---	1000V	700V	1000V

**6 Amp Rectifier  
50 - 1000 Volts**

**R-6**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

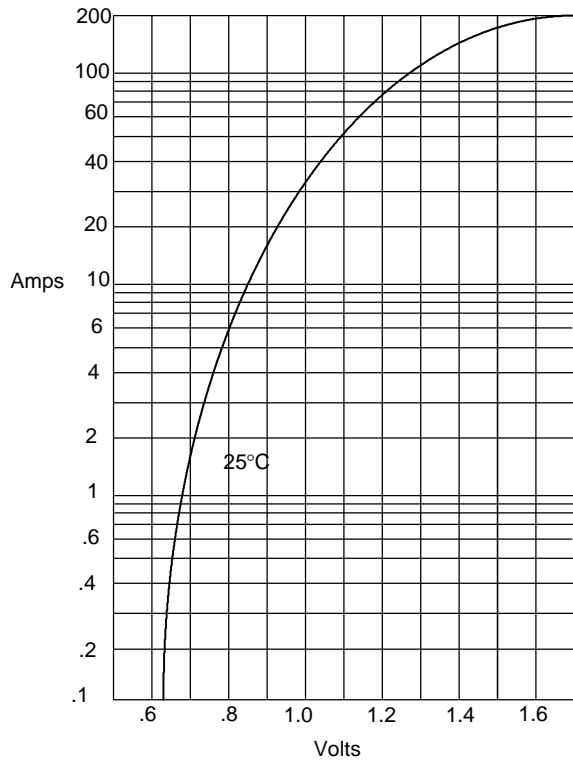
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	6.0A	$T_A = 60^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	400A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	0.95V	$I_{FM} = 6.0\text{A}; T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 100 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	150pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

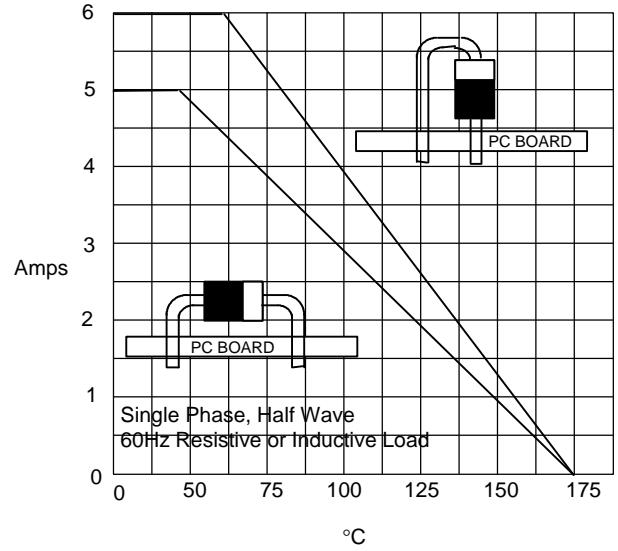
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Figure 1  
Typical Forward Characteristics



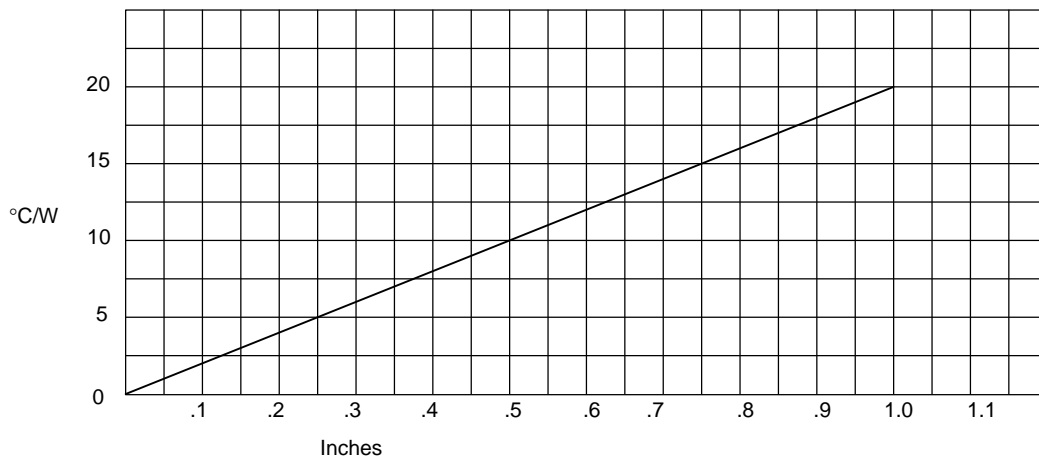
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

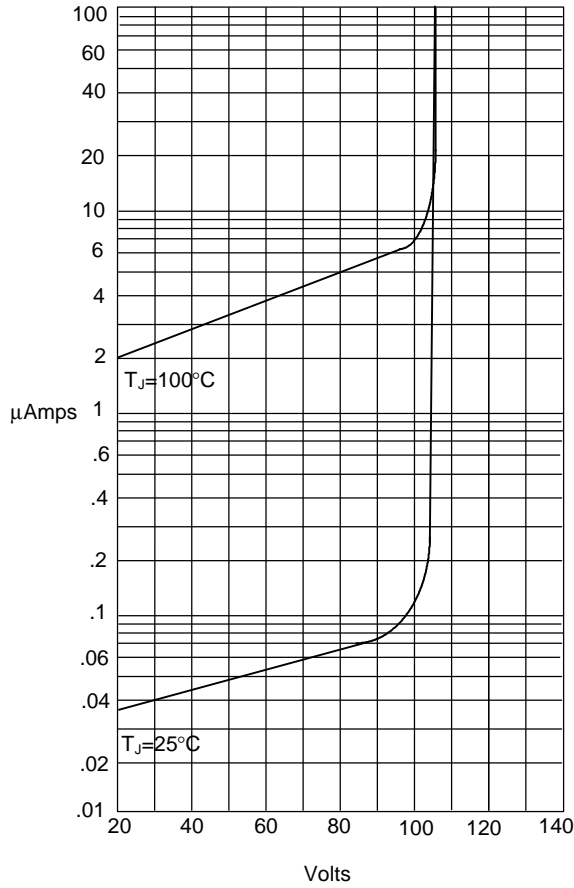
Figure 3  
Typical Thermal Resistance versus Lead Length



Thermal Resistance - °C/W *versus*  
Equal Lead Length To Heat Sink - Inches

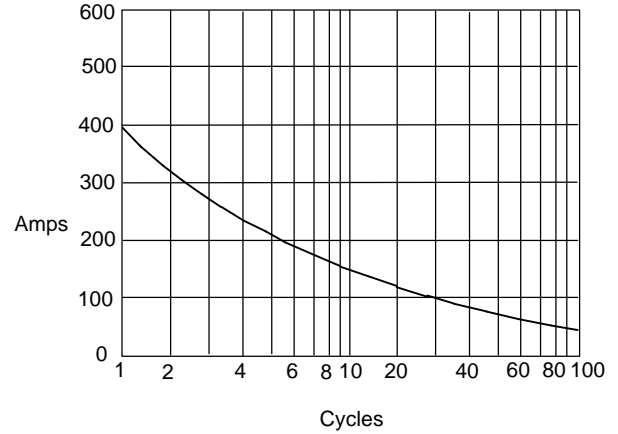
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Figure 4  
Typical Reverse Characteristics



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

Figure 5  
Maximum Non-Repetitive Forward Surge Current



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