



Micro Commercial Components
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6A05 THRU 6A10

Features

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

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 10°C/W Junction To Ambient

MCC 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

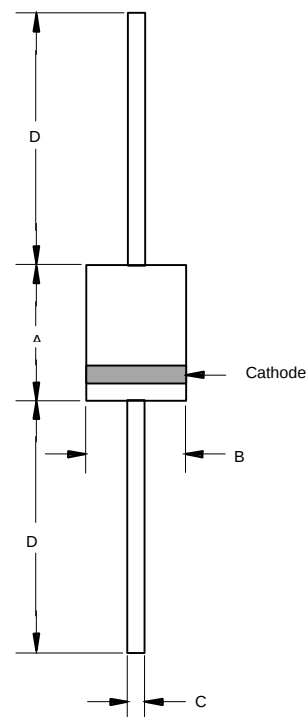
Electrical Characteristics @ 25°C Unless Otherwise Specified

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 μA 100 μA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	150pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

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

6 Amp Rectifier 50 - 1000 Volts

R-6

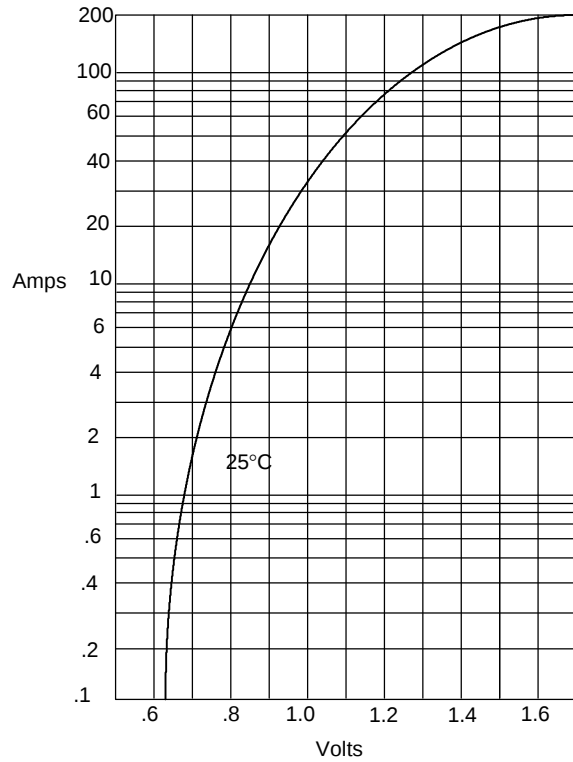


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

6A05 thru 6A10

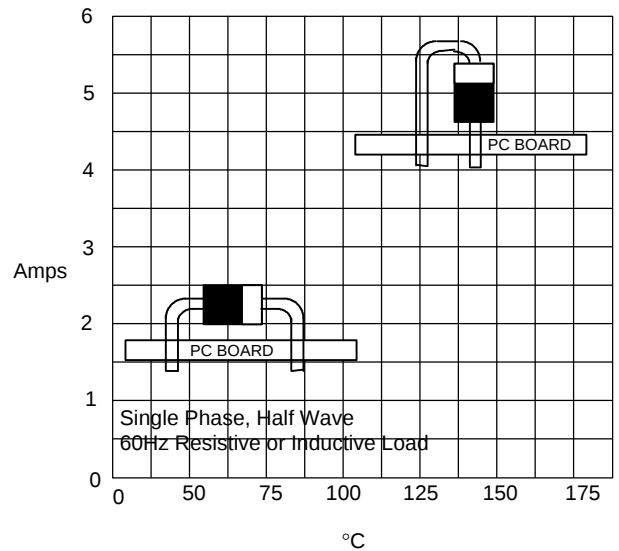


Figure 1
Typical Forward Characteristics



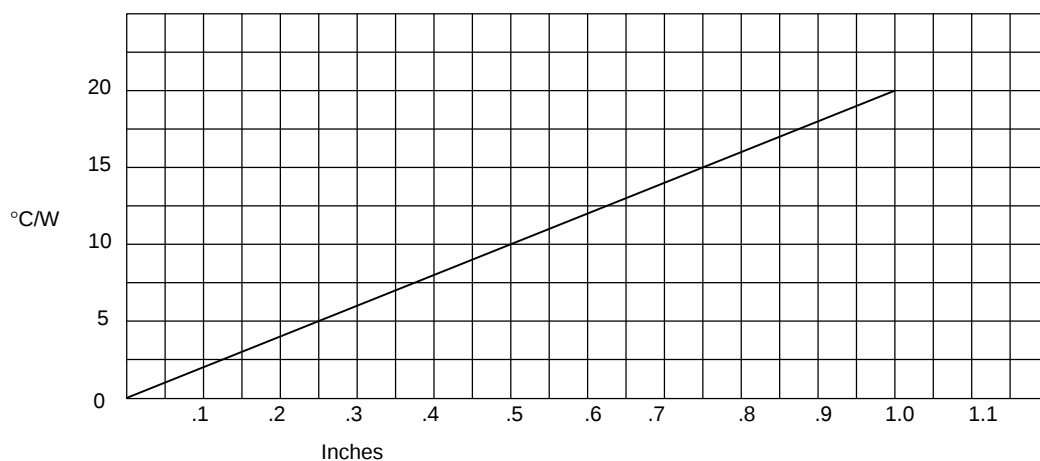
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

Figure 3
Typical Thermal Resistance versus Lead Length

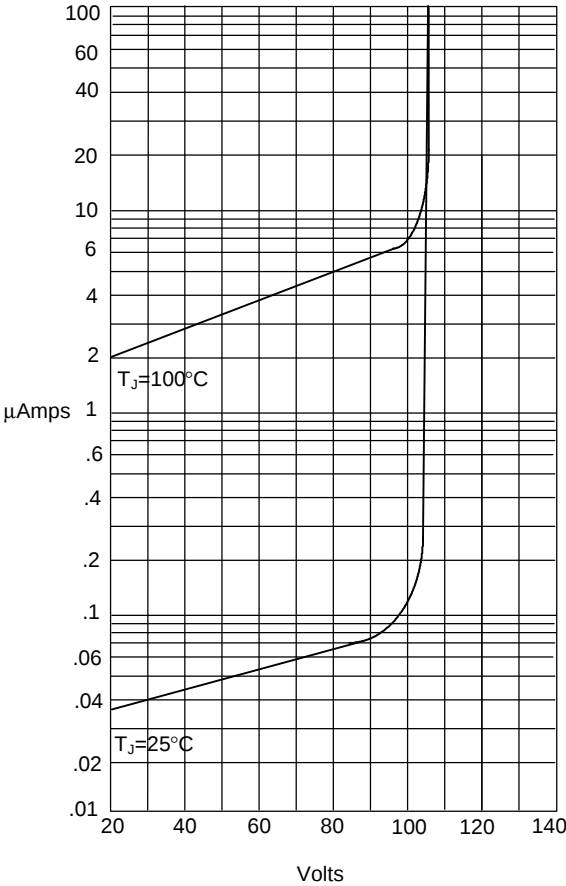


Thermal Resistance - °C/W *versus*
Equal Lead Length To Heat Sink - Inches

6A05 thru 6A10

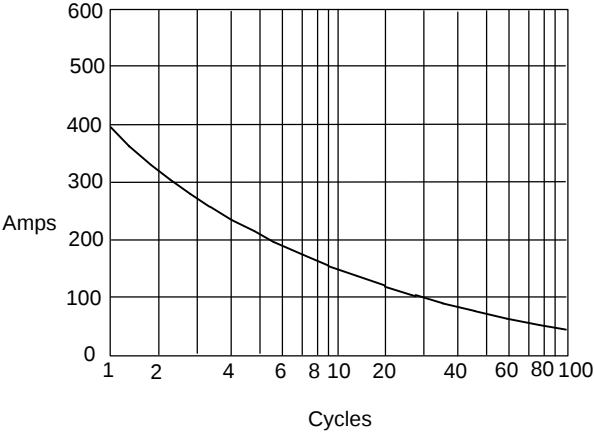


Figure 4
Typical Reverse Characteristics



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