



Micro Commercial Components  
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# MURF805 THRU MURF860

## Features

- Low Power Loss , High Efficiency
- Low Forward Voltage , High Current Capability
- High Surge Capacity
- Super Fast Recovery Times , High Voltage

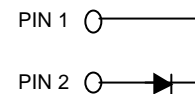
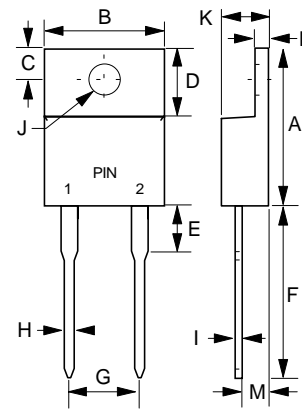
## Maximum Ratings

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

# 8 Amp Isolation Super Fast Recovery Rectifier 50 to 400 Volts

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURF805	MURF805	50V	35V	50V
MURF810	MURF810	100V	70V	100V
MURF820	MURF820	200V	140V	200V
MURF840	MURF840	400V	320V	400V
MURF860	MURF860	600V	480V	600V

## ITO-220AC



## Electrical Characteristics @ 25°C Unless Otherwise Specified

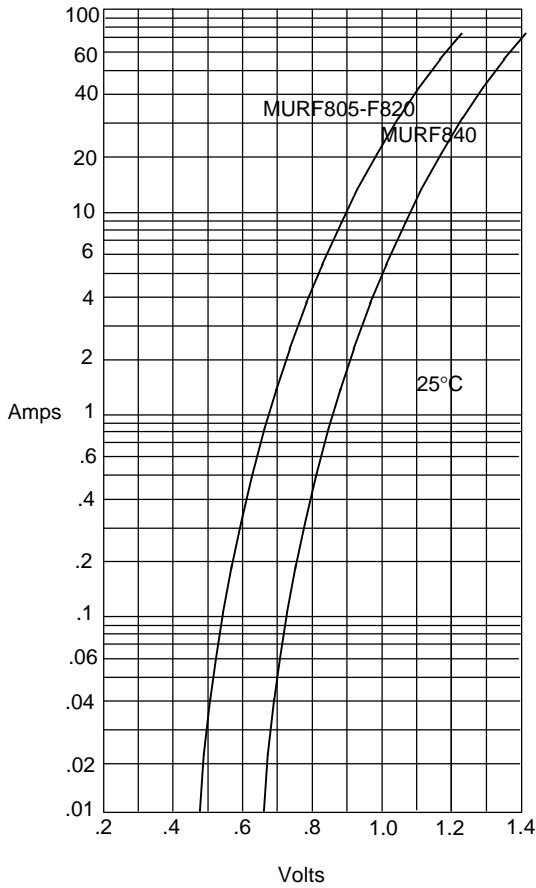
Average Forward Current	$I_{F(AV)}$	8.0A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	125A	8.3 ms, half sine
Maximum Forward Voltage Drop Per Element F805-F820 F840 F860	$V_F$	0.95V 1.30V 1.70V	$I_{FM} = 8\text{ A}$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 uA 500uA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Maximum Reverse Recovery Time F805-F820 F840 F860	$T_{rr}$	35ns 50ns 100ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$

DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	.583	.606	14.80	15.40
B	---	.406	---	10.30
C	.100	.112	2.55	2.85
D	.248	.272	6.30	6.90
E	---	.161	---	4.10
F	.512	.543	13.00	13.80
G	.200		5.10	
H	---	.035	---	0.90
I	---	.032	---	0.80
J	.118	.134	3.00	3.40
K	---	.189	---	4.80
L	---	.123	---	3.10
M	.098	.114	2.50	2.90

\*Pulse test: Pulse width 200 μsec, Duty cycle 1%

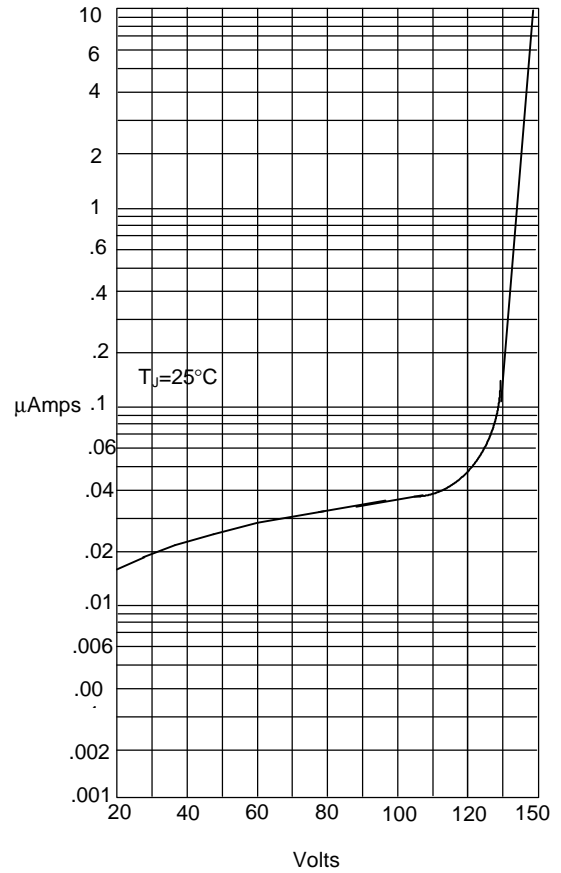
# MURF805 thru MURF860

Figure 1  
Typical Forward Characteristics



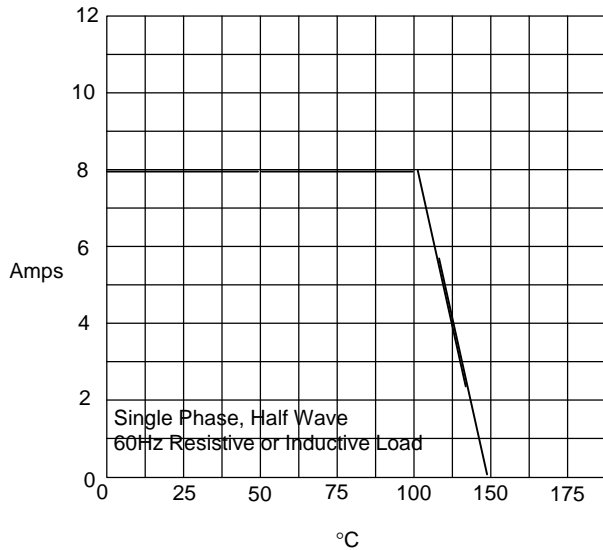
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



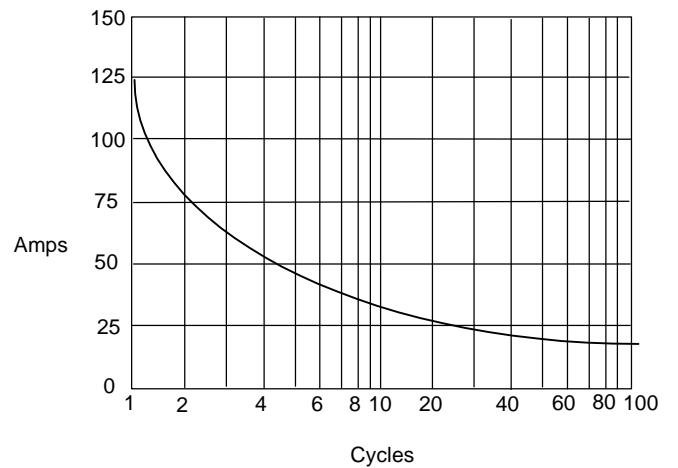
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



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

Figure 4  
Maximum Non-Repetitive Forward Surge Current



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