



Micro Commercial Components
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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

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

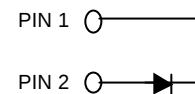
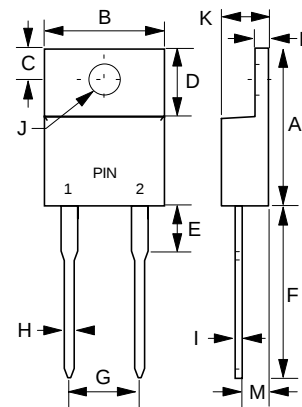
Average Forward Current	$I_{F(AV)}$	8.0A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	125A	8.3 ms, half sine
Maximum Forward Voltage Drop Per Element F805-F820 F840	V_F	0.95V 1.30V	$I_{FM} = 8\text{ A}$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R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

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

MURF805 THRU MURF840

8 Amp Isolation Super Fast Recovery Rectifier 50 to 400 Volts

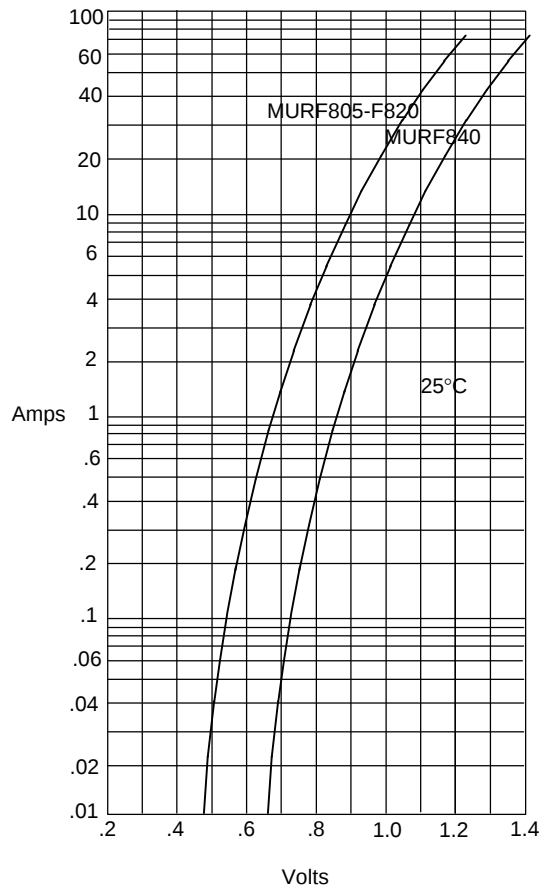
ITO-220AC



DIM	INCHES				MM	
	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{16}$	$\frac{1}{8}$
A	.583	.606	.606	.606	14.80	15.40
B	---	.406	---	---	10.30	---
C	.100	.112	.112	.112	2.55	2.85
D	.248	.272	.272	.272	6.30	6.90
E	---	.161	---	---	4.10	---
F	.512	.543	.543	.543	13.00	13.80
G	.200	.200	.200	.200	5.10	---
H	---	.035	---	---	0.90	---
I	---	.032	---	---	0.80	---
J	.118	.134	.134	.134	3.00	3.40
K	---	.189	---	---	4.80	---
L	---	.123	---	---	3.10	---
M	.098	.114	.114	.114	2.50	2.90

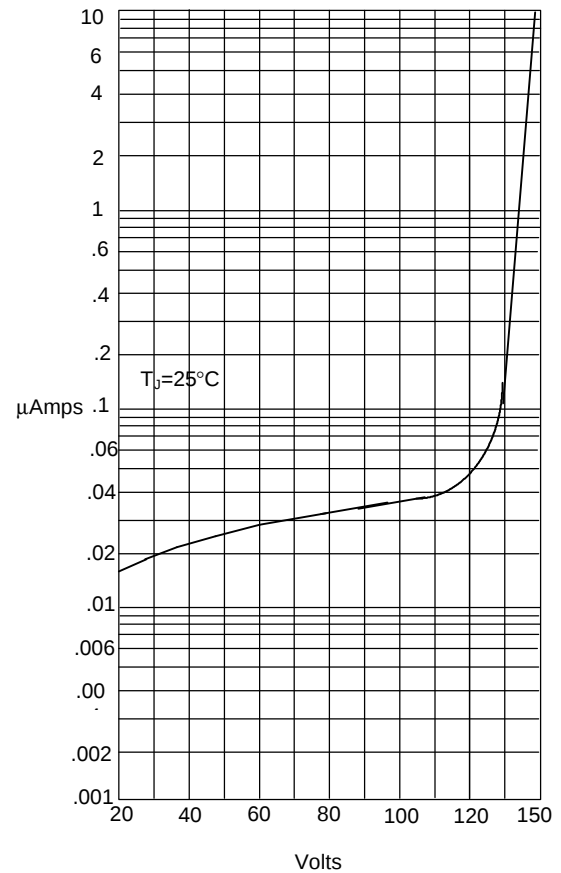
MURF805 thru MURF840

Figure 1
Typical Forward Characteristics



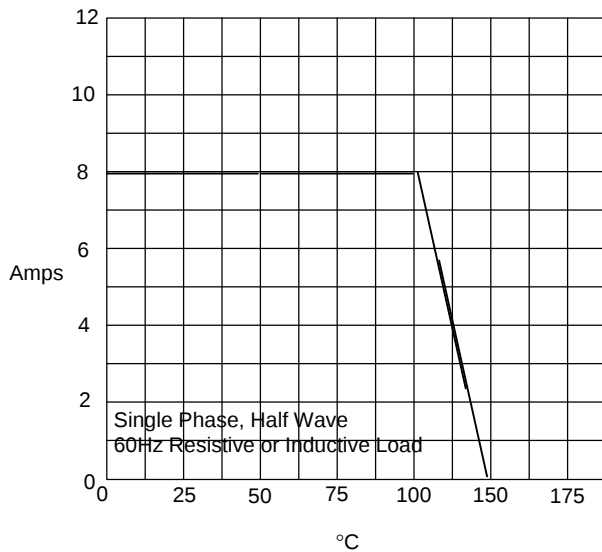
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



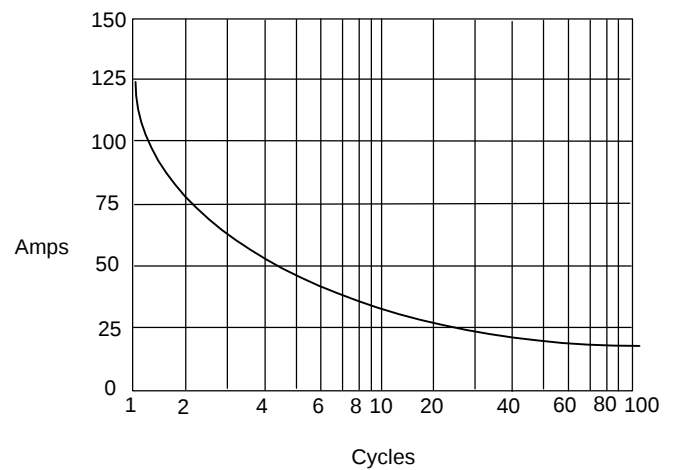
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

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