Micro Commercial Components
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MURF1005 THRU MURF1080

10Amp Isolation Ultra Fast Switching Rectifier 50 to 800 Volts

Features

- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Ultra Fast recovery times, high voltage

Maximum Ratings

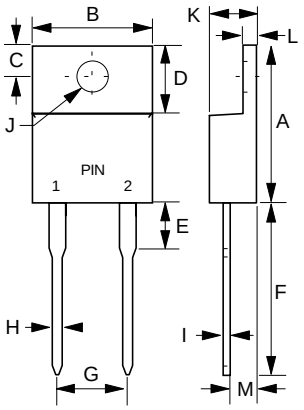
- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

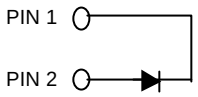
Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURF1005	U1005	50V	35V	50V
MURF1010	U1010	100V	70V	100V
MURF1020	U1020	200V	140V	200V
MURF1030	U1030	300V	210V	300V
MURF1040	U1040	400V	280V	400V
MURF1060	U1060	600V	420V	600V
MURF1080	U1080	800V	560V	800V

Electrical Characteristics @ 25°C Unless Otherwise Specified

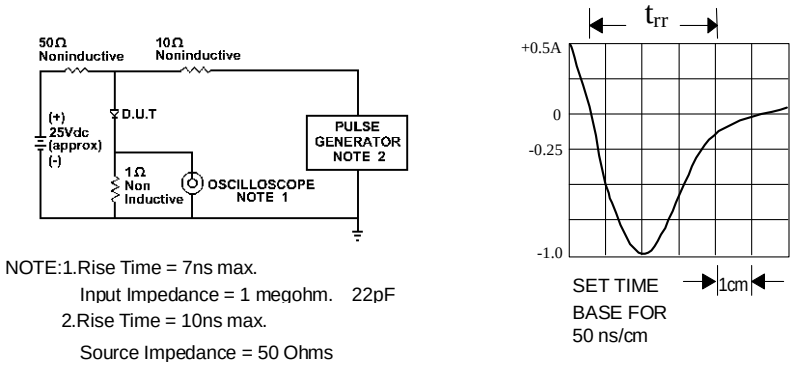
Average Forward Current	$I_{F(AV)}$	10.0A	T_C = 100°C
Peak Forward Surge Current	I_{FSM}	150A	8.3 ms, half sine
Maximum Forward Voltage Drop Per Element F1005-F1020 F1030-F1040 F1060-F1080	V_F	1.00V 1.30V 1.70V	I_{FM} = 10 A T_J = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 uA 500uA	T_A = 25°C T_A = 125°C
Maximum Reverse Recovery Time F1005-F1040 F1060-F1080	Trr	50ns 100ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A

ITO-220AC





DIMENSIONS					
	INCHES		MM		
DIM	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	



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

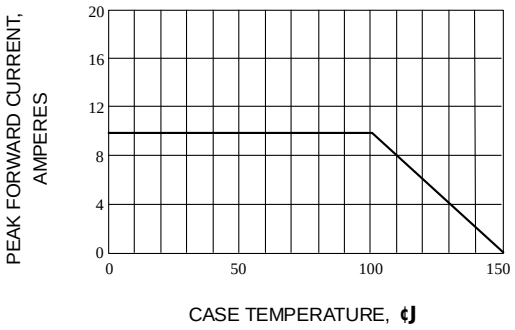


Fig. 1-TYPICAL FORWARD CURRENT DERATING CURVE

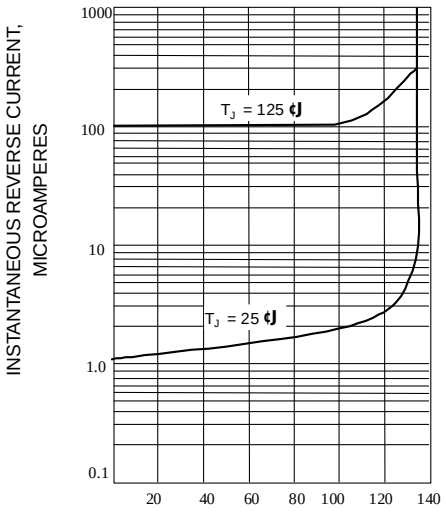


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

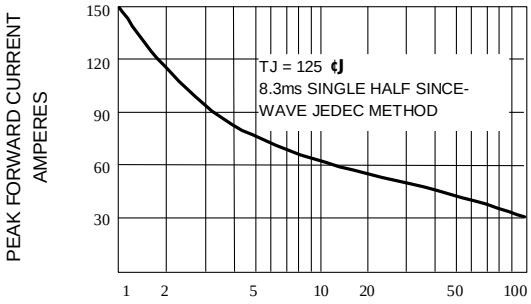
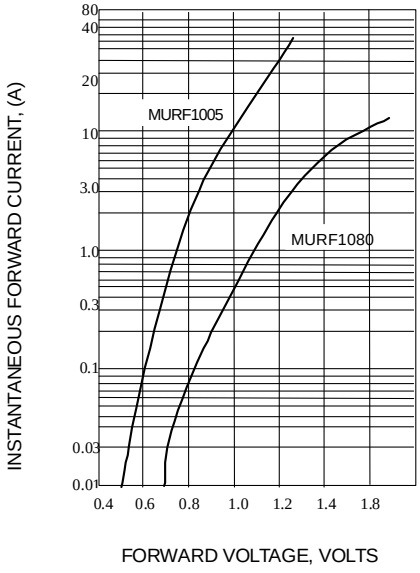


Fig. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



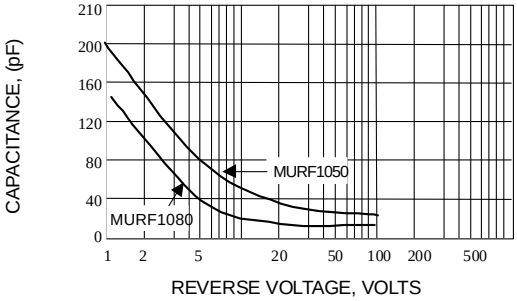


Fig. 4-TYPICAL JUNCTION CAPACITANCE

Fig. 5-TYPICAL FORWARD CHARACTERISTICS