

# MURF1005 THRU MURF10100

## 10.0 AMP SCHOTTKY BARRIER RECTIFIERS



### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Good for switching mode application

### MECHANICAL DATA

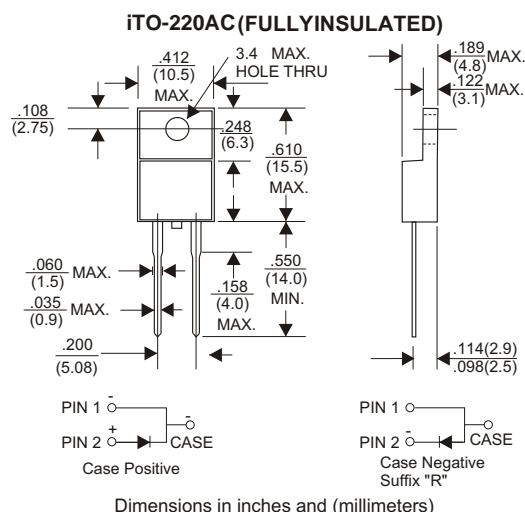
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: As Marked
- \* Mounting position: Any

### VOLTAGE RANGE

20 to 200 Volts

### CURRENT

10.0 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

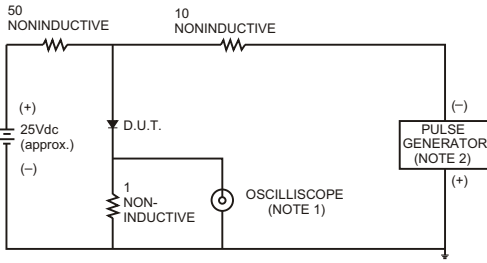
TYPE NUMBER	MURF1005	MURF1010	MURF1020	MURF1030	MURF1040	MURF1060	MURF1080	MURF10100	UNITS	
Maximum Recurrent Peak Reverse Voltage	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=50°C									10.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)									175	A
Maximum Instantaneous Forward Voltage at 10.0A	1.0		1.3		1.85				V	
Maximum DC Reverse Current Ta=25°C									10	µA
at Rated DC Blocking Voltage Ta=100°C									400	µA
Maximum Reverse Recovery Time (Note 1)	45		60		75				nS	
Typical Junction Capacitance (Note 2)									55	pF
Operating and Storage Temperature Range Tj, Tstg									-65 — +150	°C

#### NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATING AND CHARACTERISTIC CURVES (MURF1005 THRU MURF10100)

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

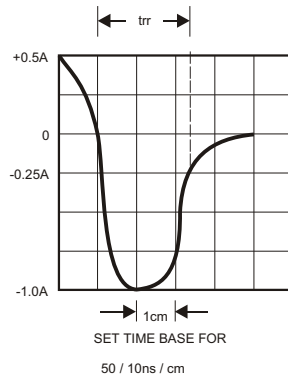


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

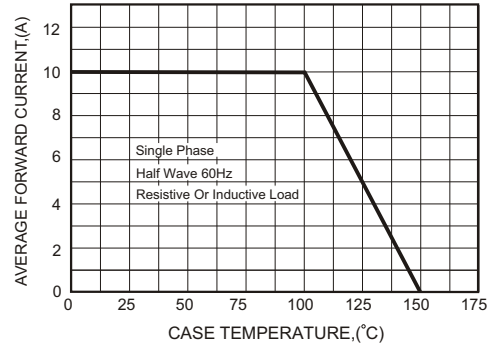


FIG.3-TYPICAL FORWARD CHARACTERISTICS

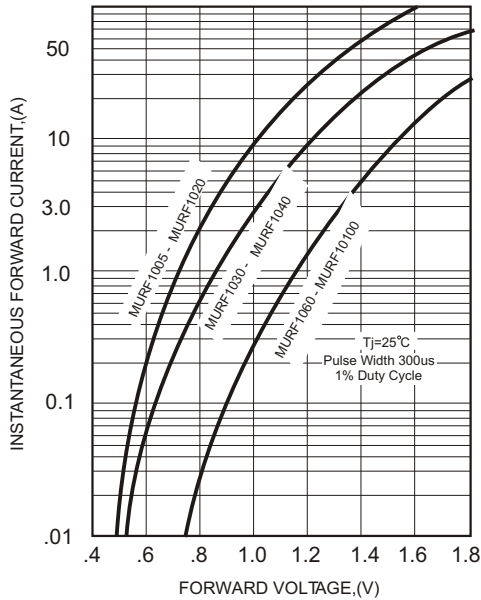


FIG.4-TYPICAL REVERSE CHARACTERISTICS

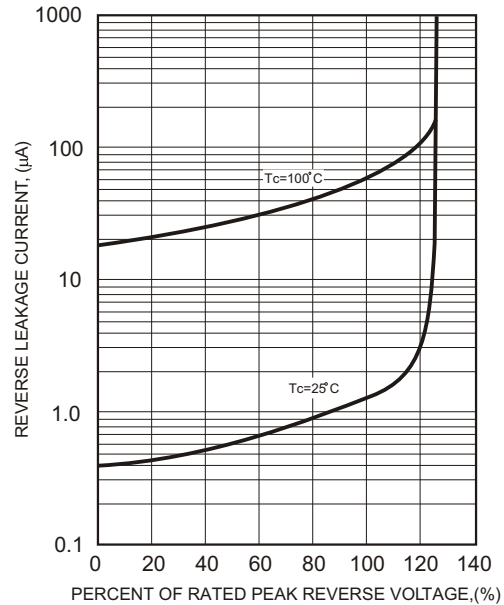


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

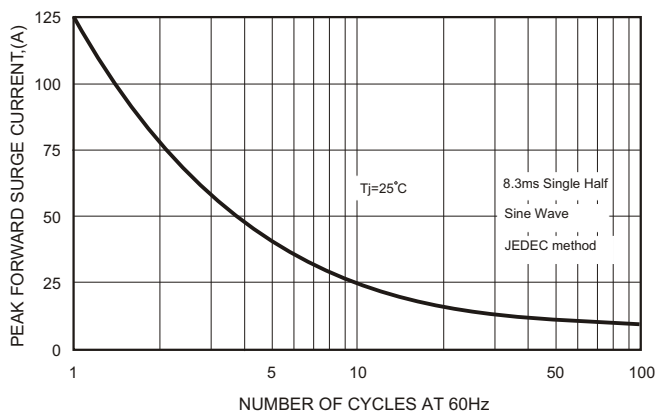
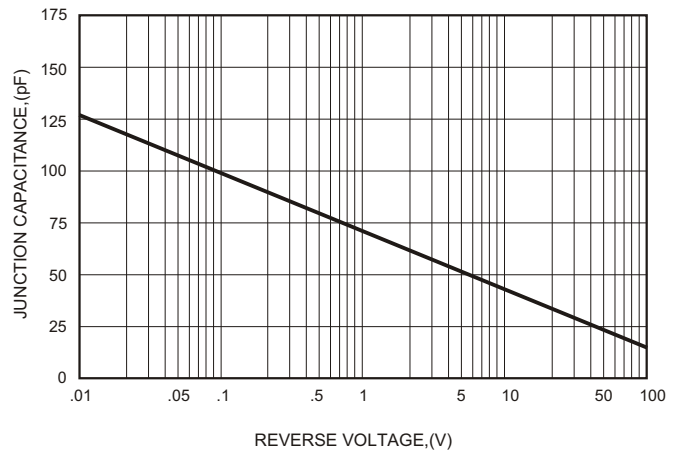


FIG.6-TYPICAL JUNCTION CAPACITANCE



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