

MURF1005 THRU MURF1060

Glass Passivated Super Fast Recovery Rectifier
Reverse Voltage - 50 to 600 V
Forward Current - 10 A

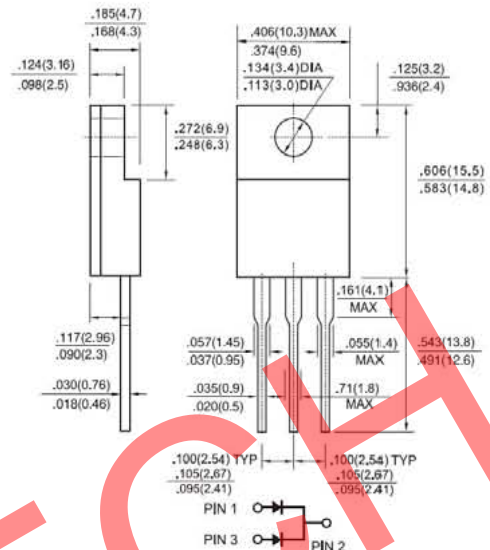
ITO-220AB

Features

- High efficiency, low V_F
- High current capability
- High reliability
- High surge current capability
- Low power loss

Mechanical Data

- **Case:** ITO-220AB, molded plastic body
- **Epoxy:** UL 94V-0 rate flame retardant
- **Terminals:** Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- **Polarity:** As marked



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

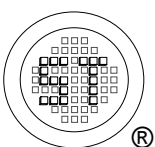
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MURF1005	MURF1010	MURF1020	MURF1040	MURF1050	MURF1060	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	500	600	v
Maximum RMS voltage	V_{RMS}	35	70	140	280	350	420	v
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	500	600	v
Maximum Average Forward Rectified Current at $T_C = 100^\circ C$	$I_{F(AV)}$	10						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	125						A
Maximum Instantaneous Forward Voltage at 5 A ¹⁾	V_F	0.975		1.3		1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ C$ $T_a = 100^\circ C$	I_R	10 400						μA
Maximum Reverse Recovery Time ²⁾	t_{rr}	35						ns
Typical Junction Capacitance ³⁾	C_J	35						pF
Typical Thermal Resistance	$R_{\theta JC}$	2						$^\circ C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150						$^\circ C$

¹⁾ Pulse Test with $P_W = 300$ usec, 1% Duty Cycle

²⁾ Reverse Recovery Test Conditions: $I_F = 0.5$ A, $I_R = 1.0$ A, $t_{rr} = 0.25$ A

³⁾ Measured at 1 MHz and Applied Reverse Voltage of 4 V D.C.



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FIG.1 FORWARD CURRENT DERATING CURVE

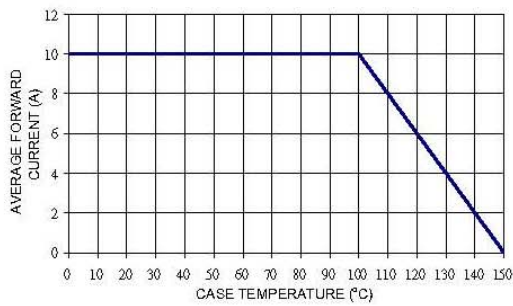


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

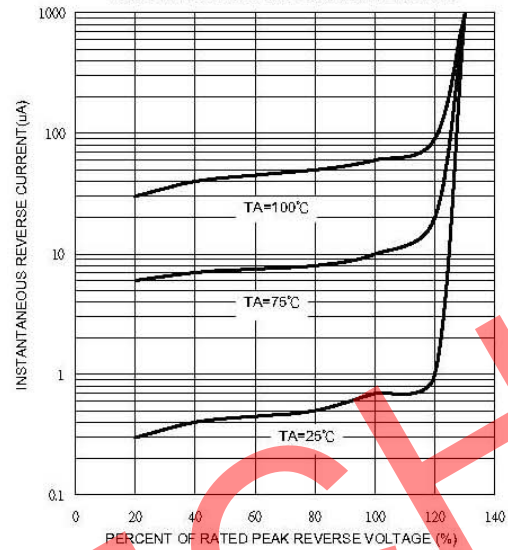


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

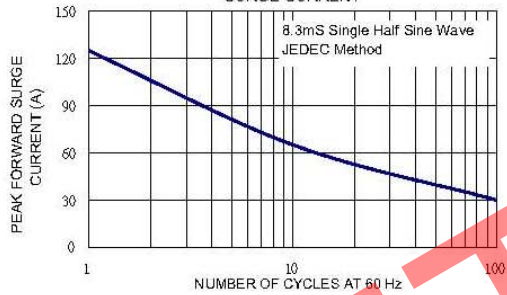


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

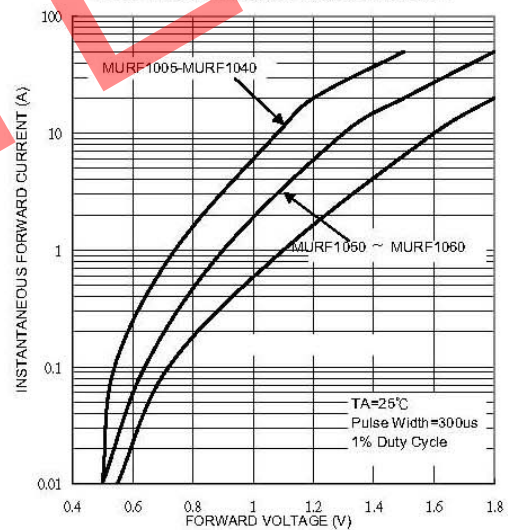


FIG. 4 TYPICAL JUNCTION CAPACITANCE

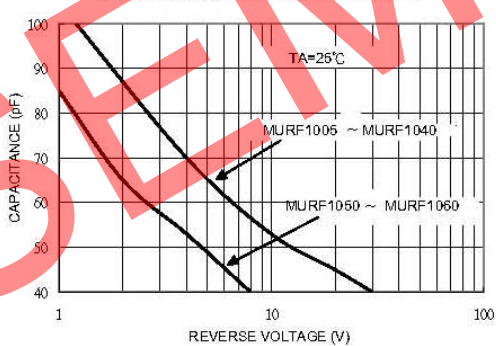
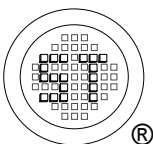
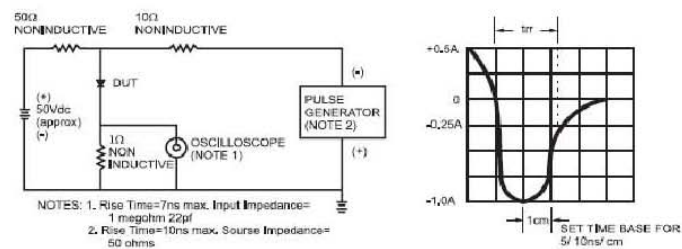


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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