

MURF1005 THRU MURF1060

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

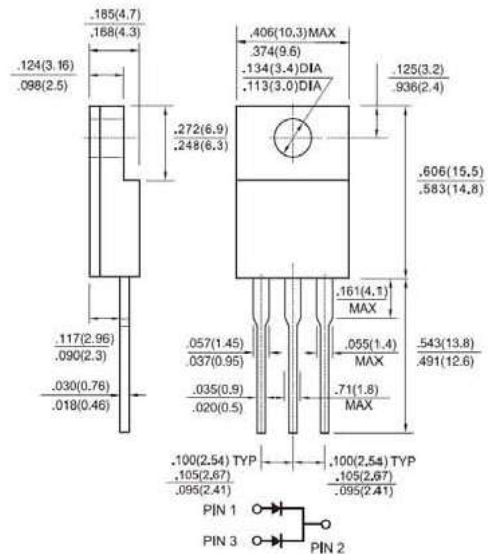
ITO-220AB

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



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

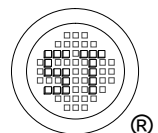
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

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°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 T _a = 25°C at Rated DC Blocking Voltage T _a = 100 °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 _{θJC}	2						°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	- 65 to + 150						°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, $I_{rr} = 0.25$ 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

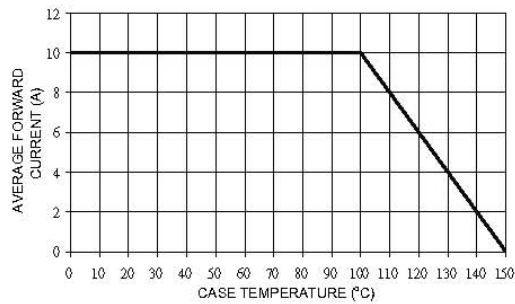


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

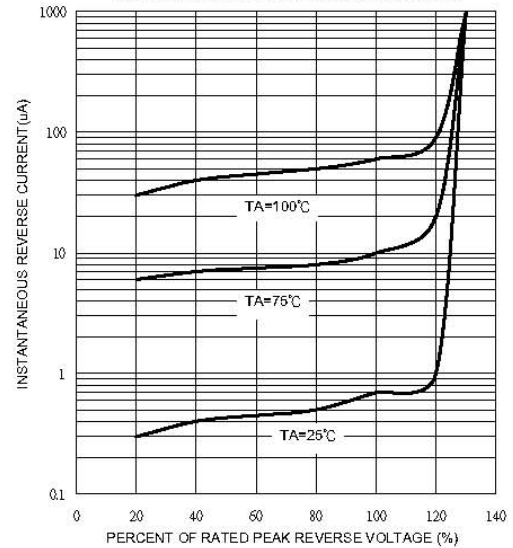


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

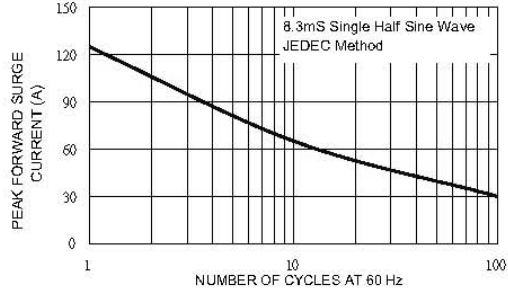


FIG. 5 TYPICAL FORWARD CHARACTERISTICS

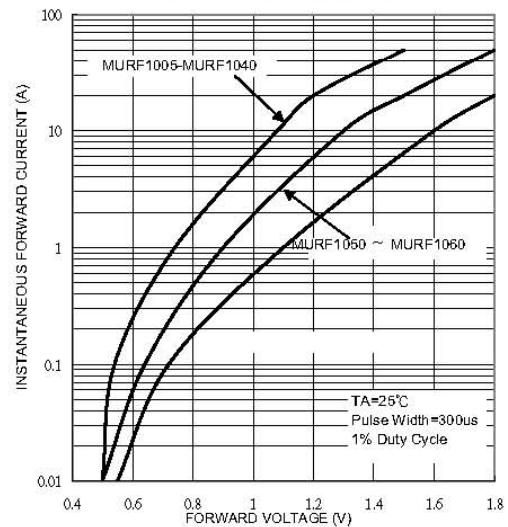


FIG. 4 TYPICAL JUNCTION CAPACITANCE

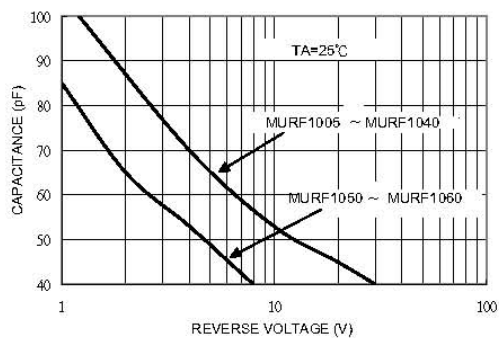


FIG. 6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

