Pb Free Plating Product

MURF1005 thru MURF1060

10.0 Ampere Isolated Glass Passivated Ultra Fast Recovery Rectifier

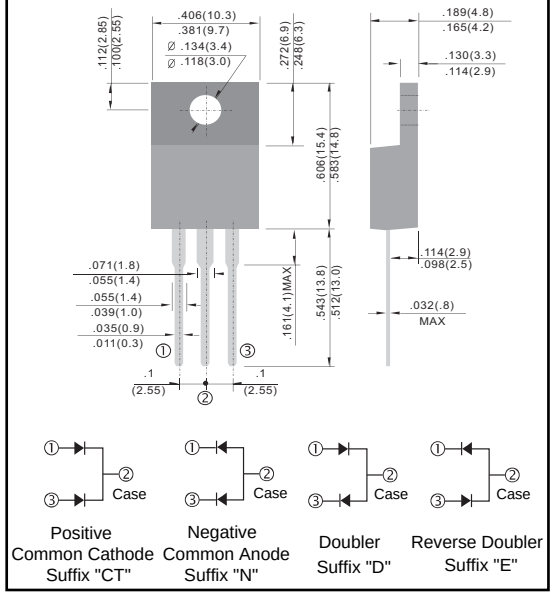
Features

- ✶ Fast switching for high efficiency
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability

Mechanical Data

- ✶ Case:ITO-220AB Isolated/Insulated
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202 method 208
- ✶ Polarity:As marked on diode body
- ✶ Mounting position: Any
- ✶ Weight: 2.24 grams

ITO-220AB Unit : inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

COMMON CATHODE POLARITY SUFFIX "CT" COMMON ANODE POLARITY SUFFIX "N" DOUBLER POLARITY SUFFIX "D" REVERSE POLARITY SUFFIX "E"	SYMBOL	MURF1005CT MURF1005N MURF1005D MURF1005E	MURF1010CT MURF1010N MURF1010D MURF1010E	MURF1020CT MURF1020N MURF1020D MURF1020E	MURF1030CT MURF1030N MURF1030D MURF1030E	MURF1040CT MURF1040N MURF1040D MURF1040E	MURF1060CT MURF1060N MURF1060D MURF1060E	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current T_C=100°C	$I_{F(AV)}$	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100						A
Maximum Instantaneous Forward Voltage @ 5.0 A	V_F	0.98			1.3		1.7	V
Maximum DC Reverse Current @T_J=25°C At Rated DC Blocking Voltage @T_J=125°C	I_R	10.0 250						uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35						nS
Typical junction Capacitance (Note 2)	C_J	65						pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2.2						°CW
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150						°C

NOTES : (1) Reverse recovery test conditions I_F = 0.5A, I_R = 1.0A, Irr = 0.25A.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

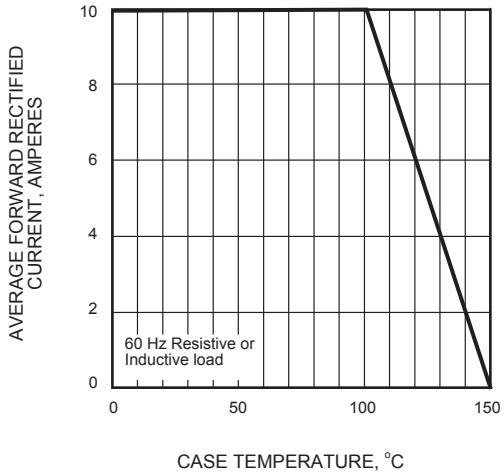


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

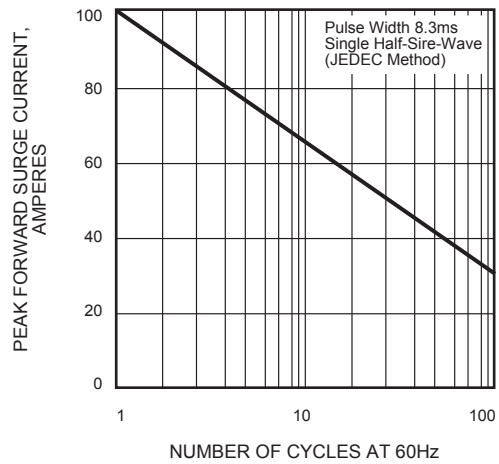


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

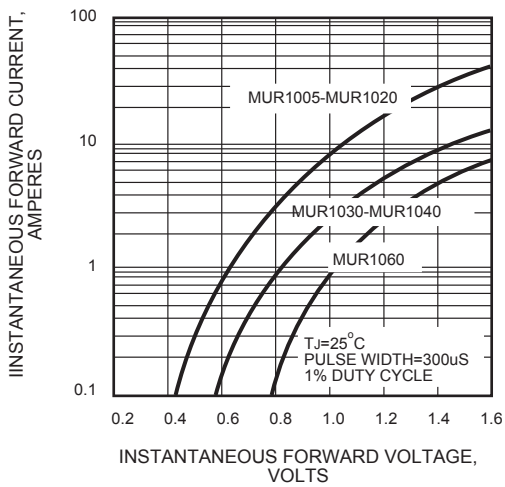


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

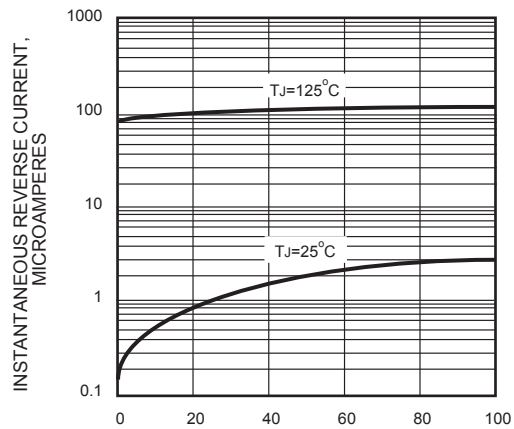


FIG.5 - TYPICAL JUNCTION CAPACITANCE