Pb Free Plating Product

MURF1605 thru MURF1660

16.0 Ampere Isolated Glass Passivated Ultra Fast Recovery Rectifier

Features

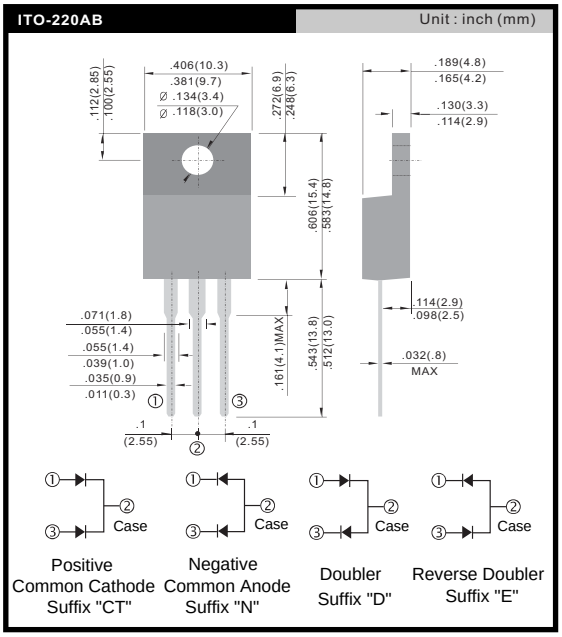
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

Application

- Automotive Environment|DC Motor Control
- Plating Power Supply|UPS
- Amplifier and Sound Device System etc..

Mechanical Data

- Case: Molded plastic Isolated/Insulated ITO-220AB
- 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: 2.03 grams



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	MURF1605CT MURF1605N MURF1605D MURF1605E	MURF1610CT MURF1610N MURF1610D MURF1610E	MURF1620CT MURF1620N MURF1620D MURF1620E	MURF1630CT MURF1630N MURF1630D MURF1630E	MURF1640CT MURF1640N MURF1640D MURF1640E	MURF1660CT MURF1660N MURF1660D MURF1660E	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	$I_{F(AV)}$	16.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175			150			A
Maximum Instantaneous Forward Voltage @ 8.0 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	90						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 IF= 0.5A, 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

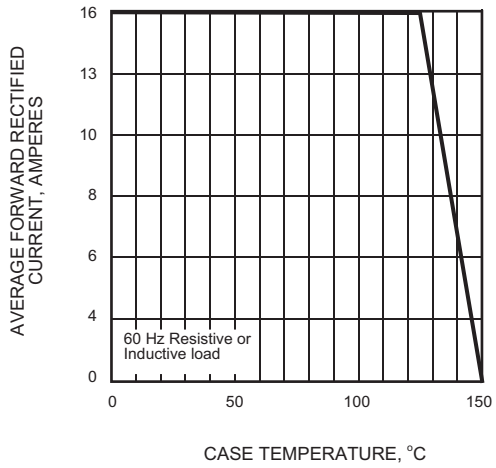


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

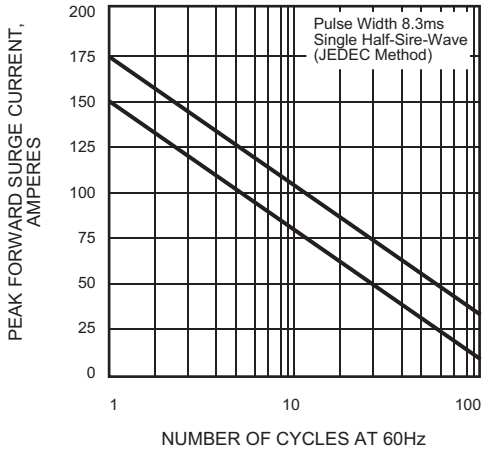


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

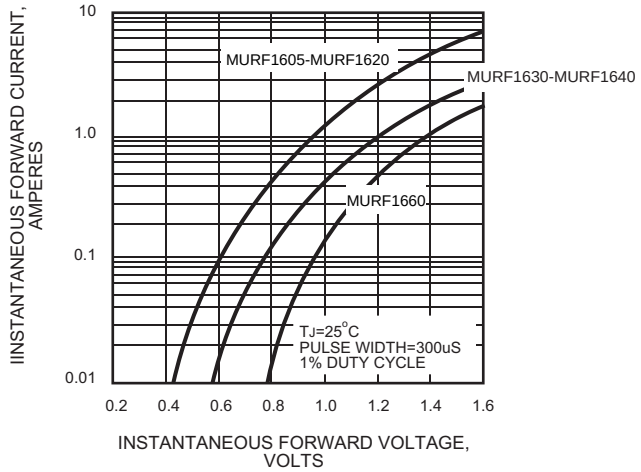


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

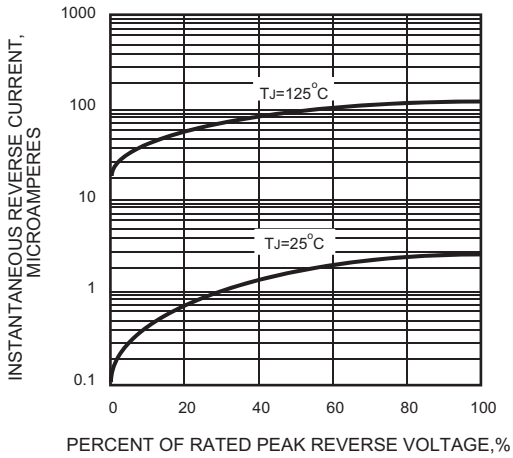


FIG.5 - TYPICAL JUNCTION CAPACITANCE