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THINKI SEMICONDUCTOR®

Pb Free Plating Product

MURF1605 thru MURF1660

RoHS Pb

16.0 Amp.Isolated Glass Passivated Junction Ultrafast Recovery Rectifiers

Features

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

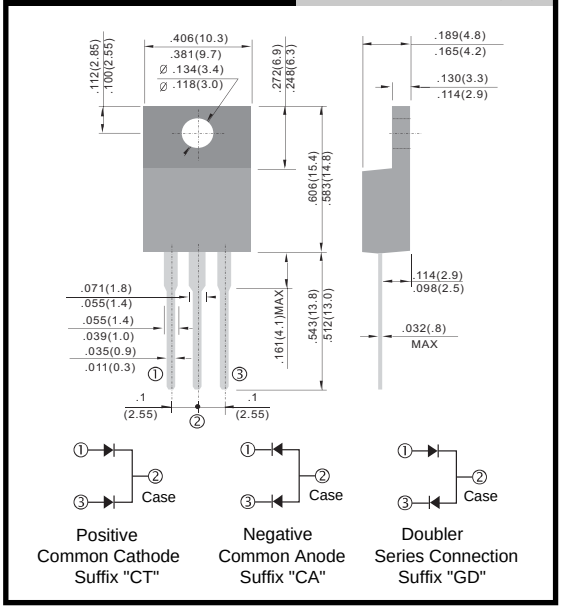
Application

- ✶ 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

ITO-220AB Unit : inch (mm)



Positive Common Cathode Suffix "CT"

Negative Common Anode Suffix "CA"

Doubler Series Connection Suffix "GD"

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 Suffix "CT" Common Anode Suffix "CA" Anode and Cathode Coexistence Suffix "GD"	SYMBOL	MURF1605CT MURF1605CA MURF1605GD	MURF1610CT MURF1610CA MURF1610GD	MURF1620CT MURF1620CA MURF1620GD	MURF1630CT MURF1630CA MURF1630GD	MURF1640CT MURF1640CA MURF1640GD	MURF1660CT MURF1660CA MURF1660GD	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.

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FIG.1 - FORWARD CURRENT DERATING CURVE

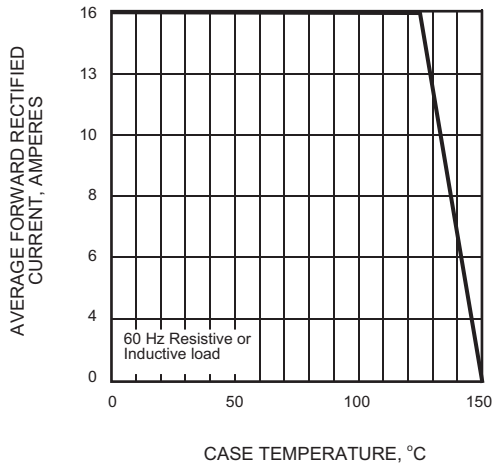


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

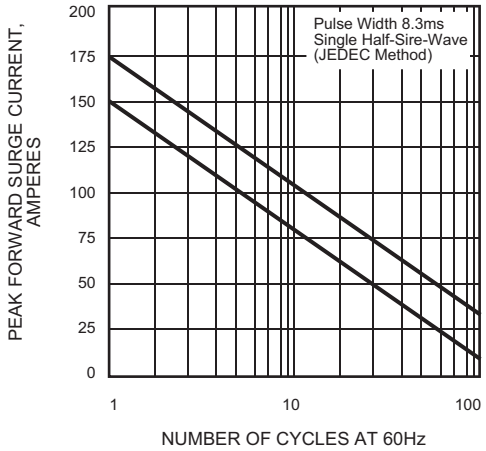


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

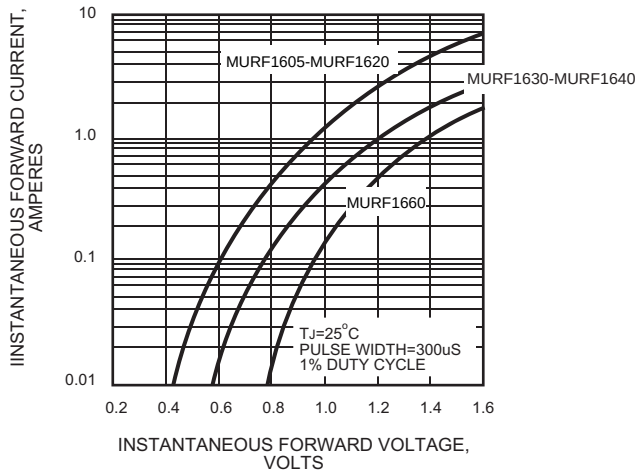


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

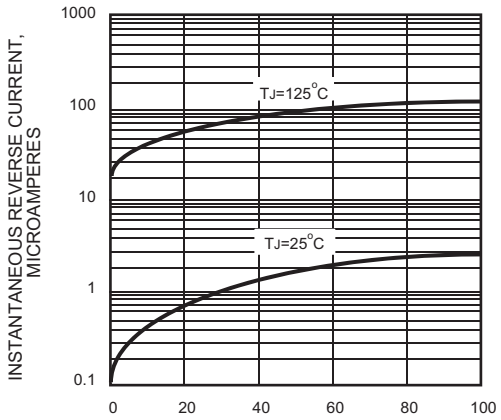
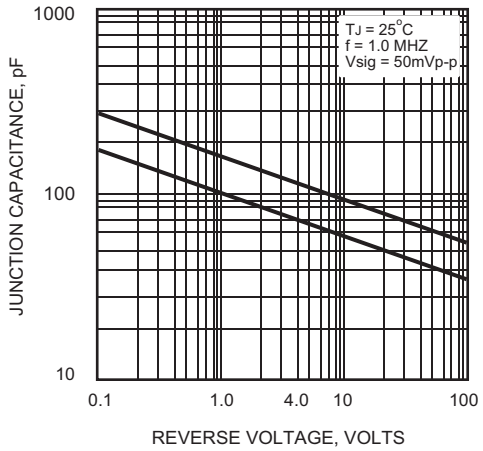


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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