THINKI SEMICONDUCTOR ®

Pb Free Plating Product

MURF1080CTD/MURF10100CTD/MURF10120CTD

RoHS Pb

10.0 Ampere Insulated Doubler Polarity Ultra Fast Recovery Rectifiers

Features

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

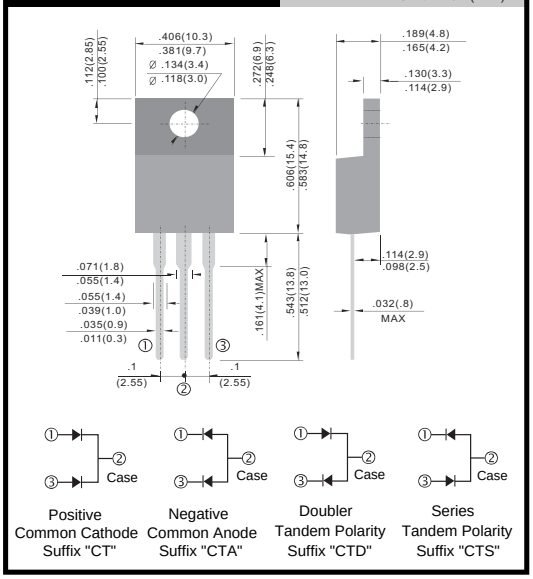
Application

- ✶ Automotive Inverters and Solar Inverters
- ✶ Plating Power Supply,SMPS and UPS
- ✶ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ✶ Case: Insulated ITO-220AB fully plastic isolated package
- ✶ 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: 2.0 gram approximately

ITO-220AB/TO-220F-3L Unit : inch (mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	MURF1080CTD	MURF10100CTD	MURF10120CTD	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	1000	1200	V
Maximum RMS Voltage	V_{RMS}	560	700	840	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	1200	V
Maximum Average Forward Rectified Current Tc=125℃ (Total Device 2x5A=10A)	$I_{F(AV)}$	10.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150			A
Maximum Instantaneous Forward Voltage @ 5.0 A (Per Diode/Per Leg)	V_F	1.7			V
Maximum DC Reverse Current @TJ=25℃ At Rated DC Blocking Voltage @TJ=125℃	I_R	5.0 100			μA μA
Maximum Reverse Recovery Time (Note 1)	Trr	75			nS
Typical junction Capacitance (Note 2)	C_J	90			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3.0			℃/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150			℃

NOTES : (1) Reverse recovery test conditions IF= 0.5A, IR= 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

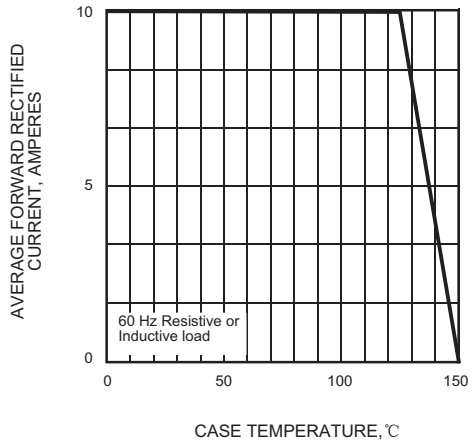


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

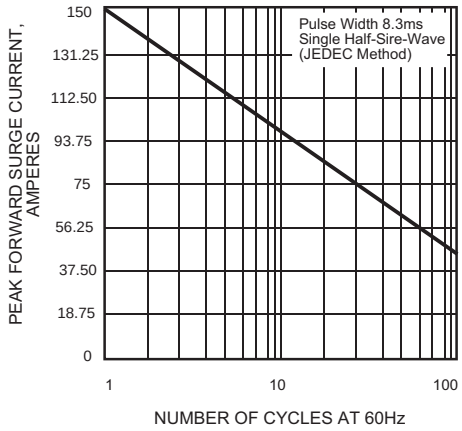


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

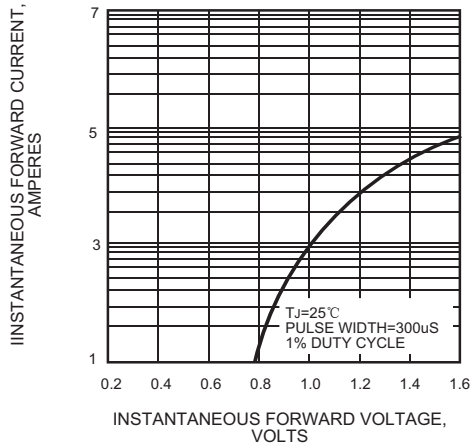


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

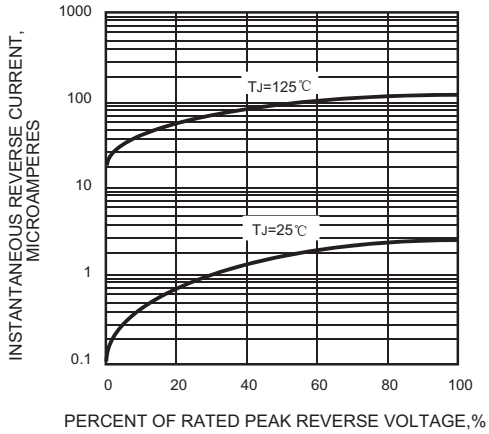
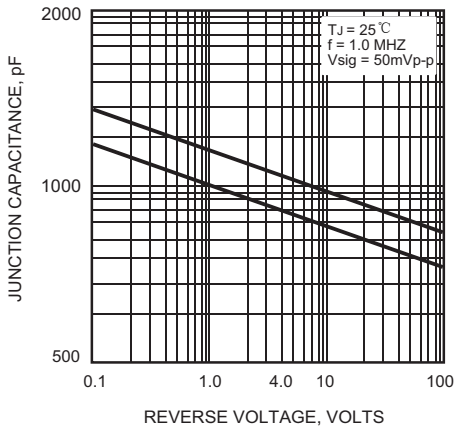


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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