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THINKI SEMICONDUCTOR ®

Pb Free Plating Product

MURF2020CT thru MURF2060CT

RoHS Pb

20.0 Ampere Insulated Common Cathode Ultra Fast Recovery Diode

Features

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

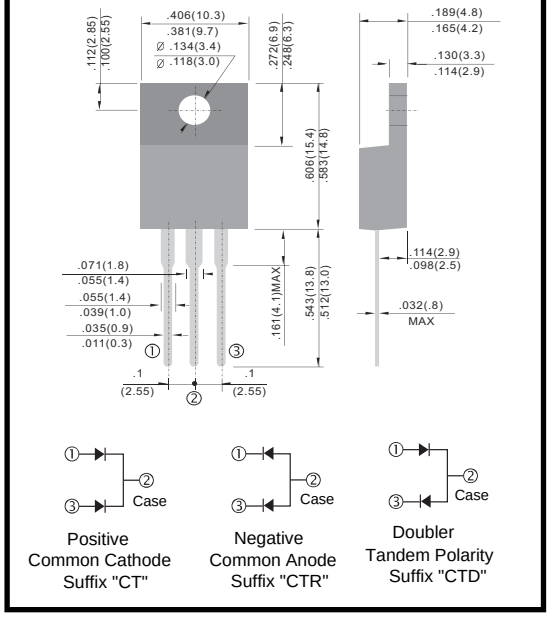
Application

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

Mechanical Data

- ✶ Case: Insulated/Isolated 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: 2.2 gram approximately

ITO-220AB — Unit : inch (mm)



Positive Common Cathode Suffix "CT"

Negative Common Anode Suffix "CTR"

Doubler Tandem Polarity Suffix "CTD"

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%.

	SYMBOL	MURF2020CT MURF2020CTR MURF2020CTD	MURF2040CT MURF2040CTR MURF2040CTD	MURF2060CT MURF2060CTR MURF2060CTD	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current T_C=125°C	$I_{F(AV)}$	20.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200	175		A
Maximum Instantaneous Forward Voltage @ 10.0 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	120	70		pF
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.

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FIG.1 - FORWARD CURRENT DERATING CURVE

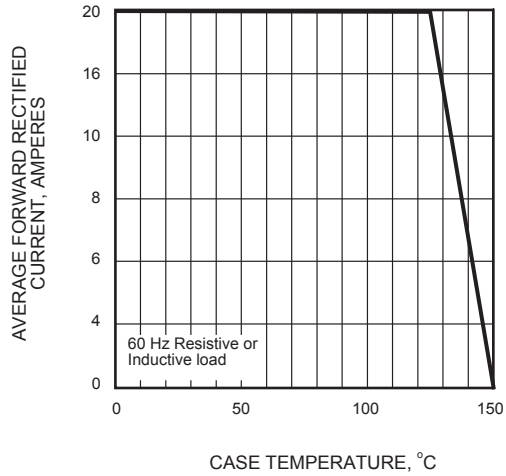


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

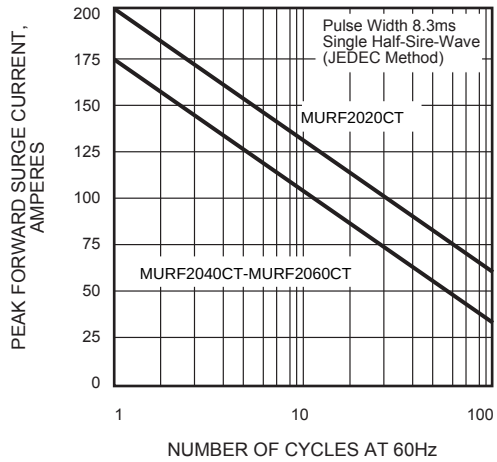


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

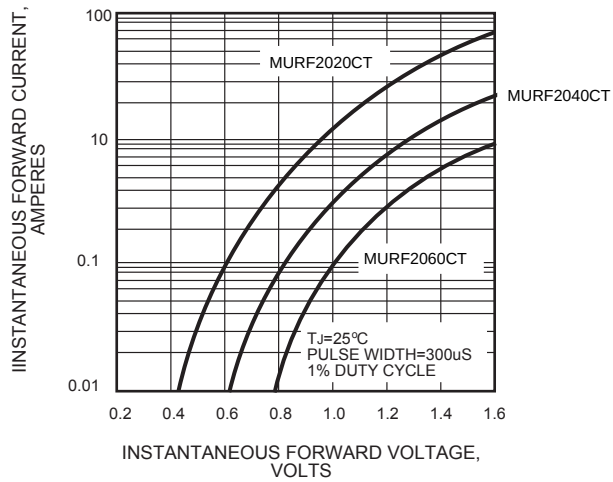


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

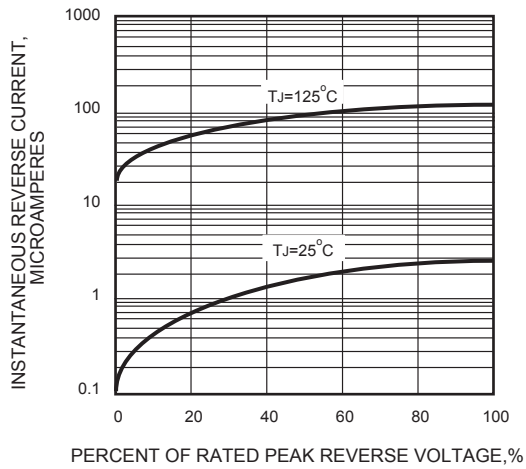
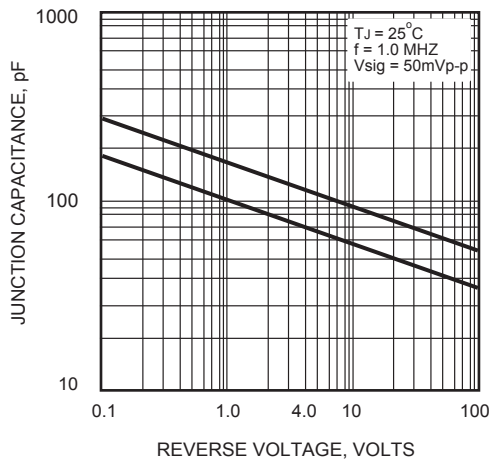


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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