THINKI SEMICONDUCTOR ®

Pb Free Plating Product

MURF3020PTD thru MURF3060PTD

RoHS Pb

30.0 Ampere Insulated Dual Doubler Ultra Fast Recovery Rectifier Diodes

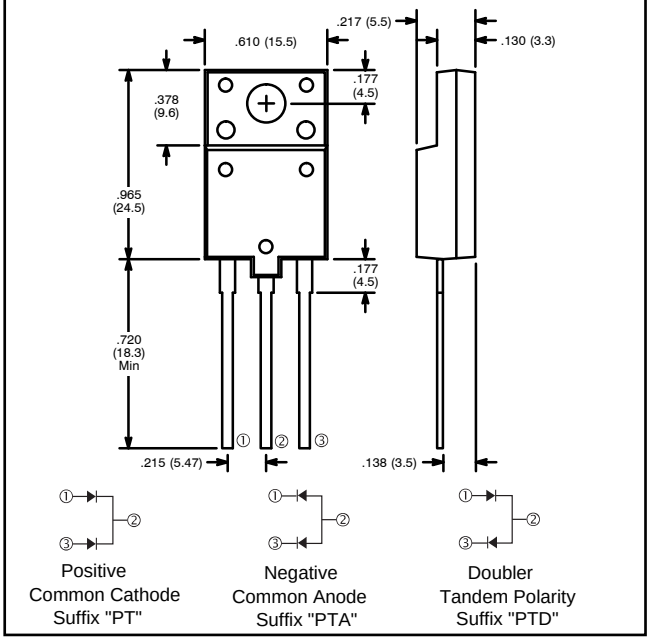
Features

- ✧Dual rectifier construction, positive center-tap
- ✧Plastic package has Underwriters Laboratory Flammability Classification 94V0
- ✧Glass passivated chip junctions
- ✧Superfast recovery time, high voltage
- ✧Low forward voltage, high current capability
- ✧Low thermal resistance
- ✧Low power loss, high efficiency
- ✧High temperature soldering guaranteed: 260°C, 0.16"(4.06mm)from case for 10 seconds

Mechanical Data

- ✧Cases: Insulated/Isolated TO-3P(H)IS
- ✧Terminals: Pure tin plated, lead free solderable per MIL-STD-750. Method 2026
- ✧Polarity: As marked
- ✧Mounting position: Any
- ✧Mounting torque: 10in-lbs. Max.
- ✧Weight: 0.2 ounce, 5.6 gram approximately

TO-3P(H)IS 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%.

	SYMBOL	MURF3020PT MURF3020PTA MURF3020PTD	MURF3040PT MURF3040PTA MURF3040PTD	MURF3060PT MURF3060PTA MURF3060PTD	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	$I_{F(AV)}$	30.0			A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300			A
Maximum Instantaneous Forward Voltage @ 15.0 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	10 500			uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35			nS
Typical junction Capacitance (Note 2)	C_J	150			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) Thermal Resistance junction to terminal.
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

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FIG.1 - FORWARD CURRENT DERATING CURVE

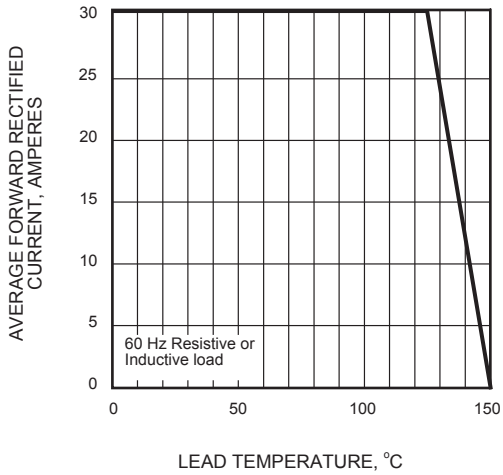


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

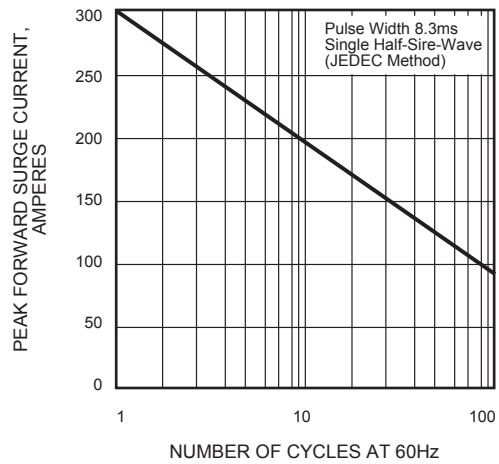


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

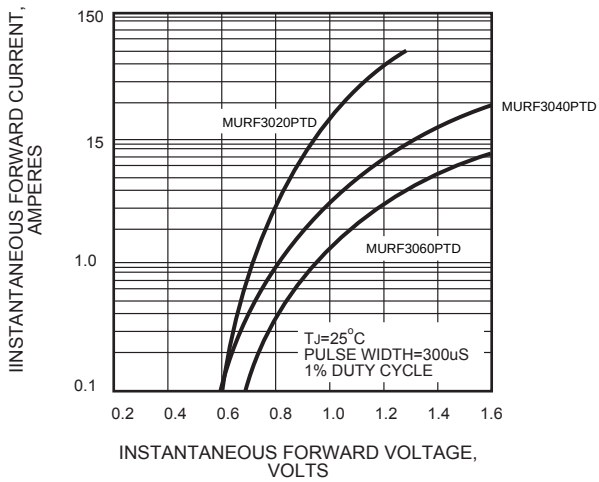


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

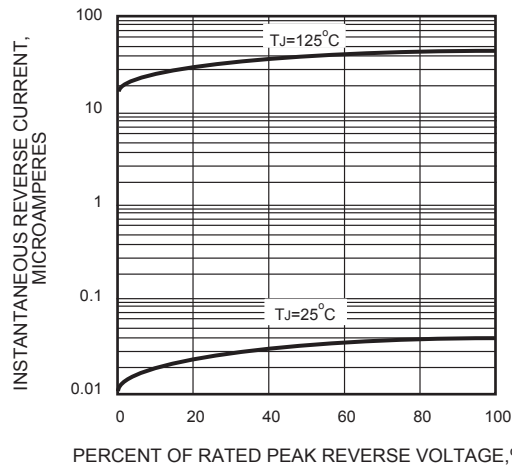
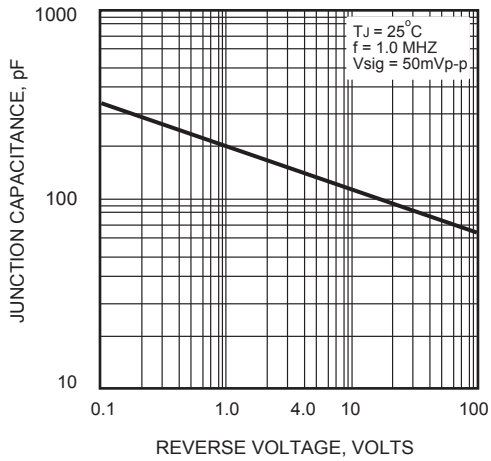


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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