

Pb Free Plating Product

MUR3005 thru MUR3060



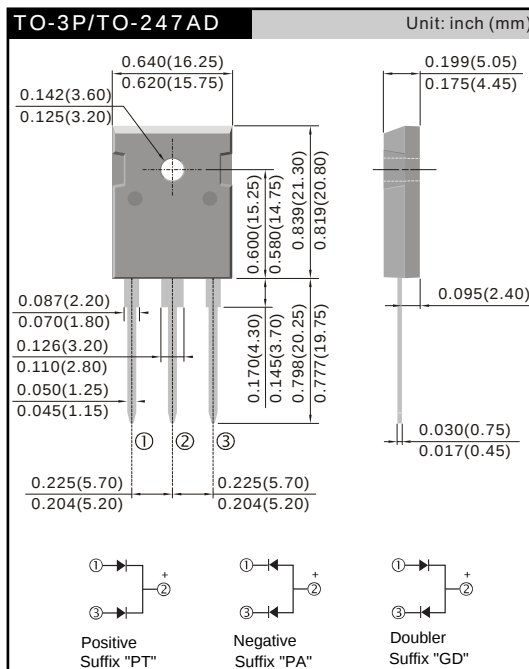
30.0 Ampere Glass Passivated Ultrafast Recovery Rectifier Diodes

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: TO-3P/TO-247AD Package Type
- ✧ 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 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 Suffix "PT" Common Anode Suffix "PA" Anode and Cathode Coexistence Suffix "GD"	SYMBOL	MUR3005PT MUR3005PA MUR3005GD	MUR3010PT MUR3010PA MUR3010GD	MUR3020PT MUR3020PA MUR3020GD	MUR3030PT MUR3030PA MUR3030GD	MUR3040PT MUR3040PA MUR3040GD	MUR3060PT MUR3060PA MUR3060GD	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 =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	0.95			1.3		1.5	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)	T _{rr}	35					60	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, I_{rr} = 0.25A.
 (2) Thermal Resistance junction to terminal.
 (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

FIG.1 - FORWARD CURRENT DERATING CURVE

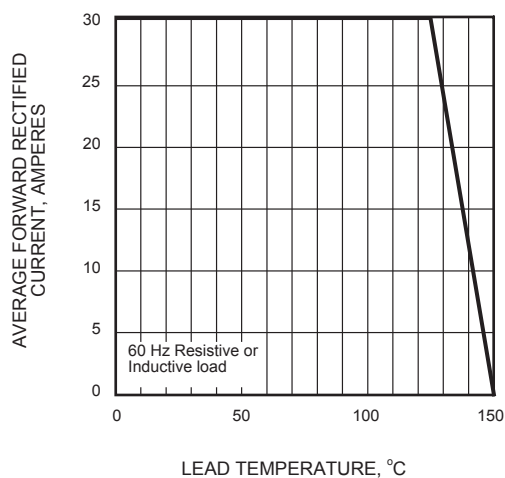


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

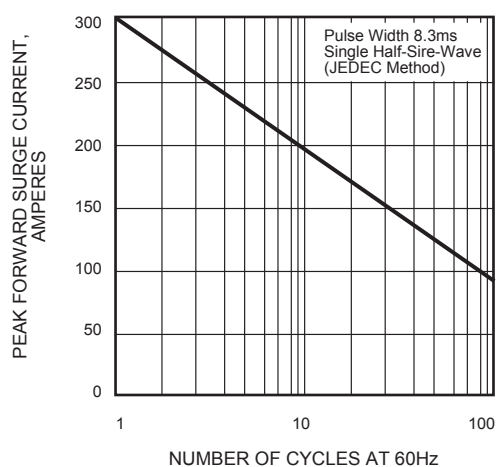


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

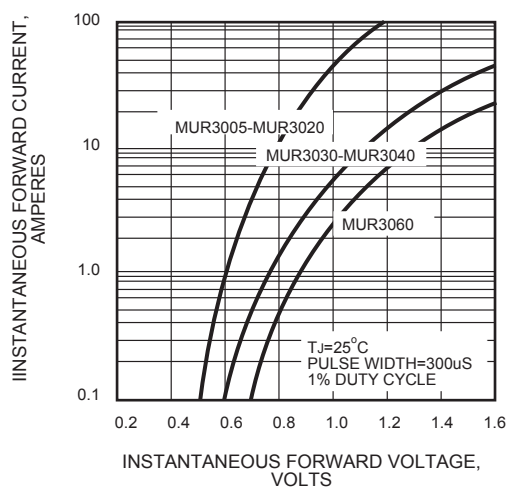


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

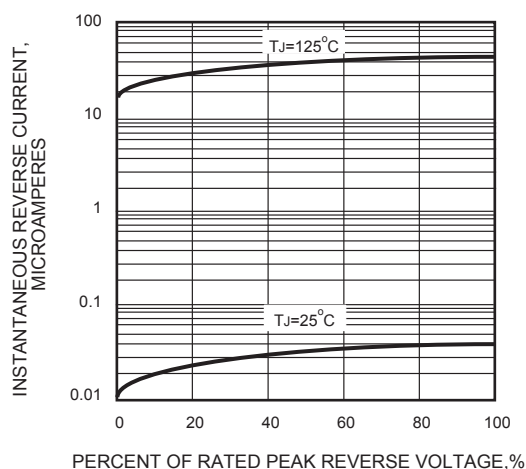


FIG.5 - TYPICAL JUNCTION CAPACITANCE

