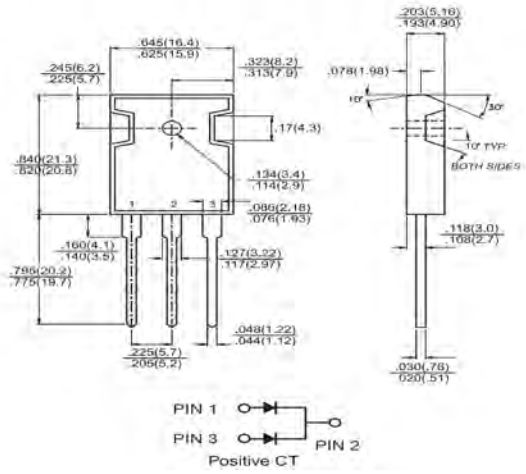
30.0 AMPS. Glass Passivated Super Fast Rectifiers
Reverse Voltage 100 to 600 Volts Forward Current 30.0 Amperes

TO-3P(TO-247AD)



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Dual rectifier construction, positive center-tap
- Glass passivated chip junctions
- Low power loss, high efficiency
- Superfast recovery time, high voltage
- Low forward voltage, high current capability
- Low thermal resistance
- High temperature soldering guaranteed: 260°C/10 seconds, 0.16" (4.06mm) lead lengths at 5 lbs (2.3kg) tesion

Mechanical Data

- Case: JEDEC TO-3P/TO-247AD molded plastic
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.2 ounce, 5.6 grams

Maximum Ratings and Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	MUR 3010PT	MUR 3015PT	MUR 3020PT	MUR 3030PT	MUR 3040PT	MUR 3060PT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	70	105	140	210	280	420	V
Maximum DC Blocking voltage	V_{DC}	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at Tc=100℃	$I_{(AV)}$	30						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	300						A
Maximum Instantaneous Forward Voltage @15.0A	V_F	0.95			1.30		1.70	V
Maximum D.C. Reverse Current @ Tc=25℃ at Rated DC Blocking Voltage @ Tc=100℃	I_R	10.0 500						uA uA
Maximum Reverse Recovery Time(Note 2) T_J=25℃	trr	35						nS
Typical Junction Capacitance (Note 1)	C_j	175.0						pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2.5						℃/W
Operating Junction Temperature Range	T_J	-55 to +150						℃
Storage Temperature Range	T_{STG}	-55 to +150						℃

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
2. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Recover to 0.25A.
3. Mounted on 4" x 6" x 0.25" Al-Plate.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

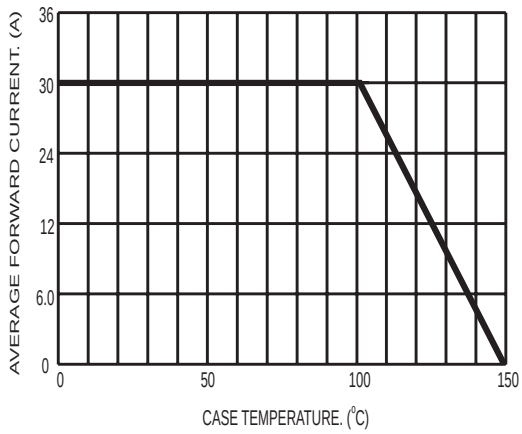


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

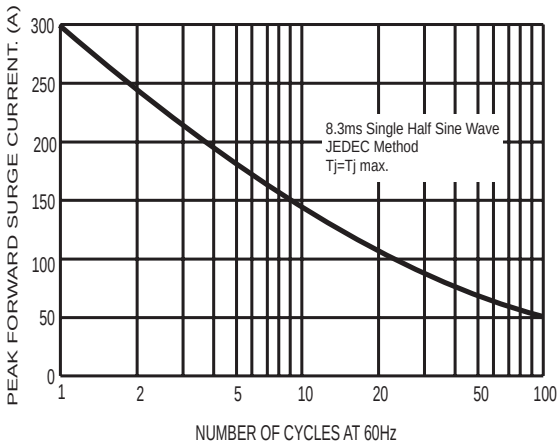


FIG.3- TYPICAL JUNCTION CAPACITANCE PER LEG

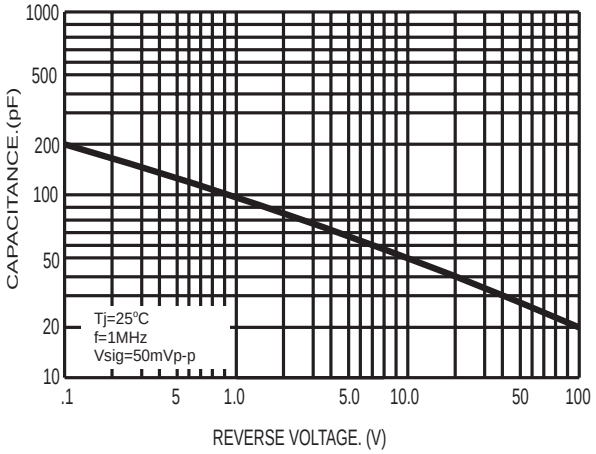


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

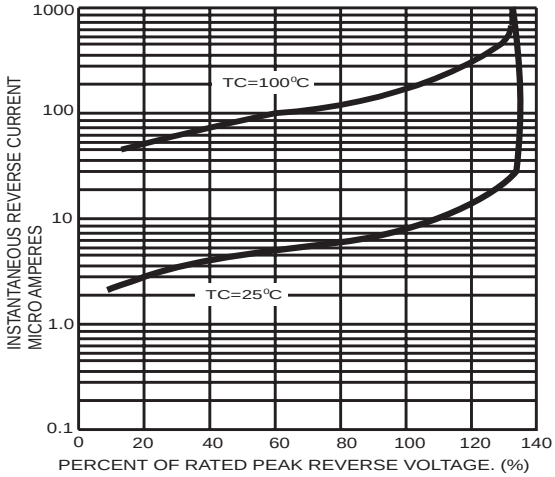


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

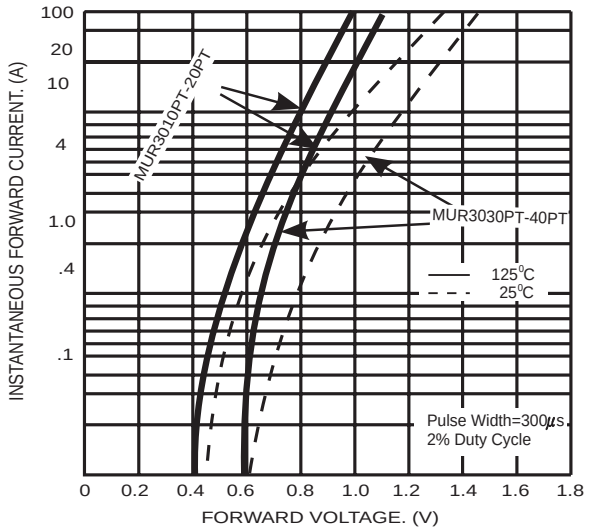
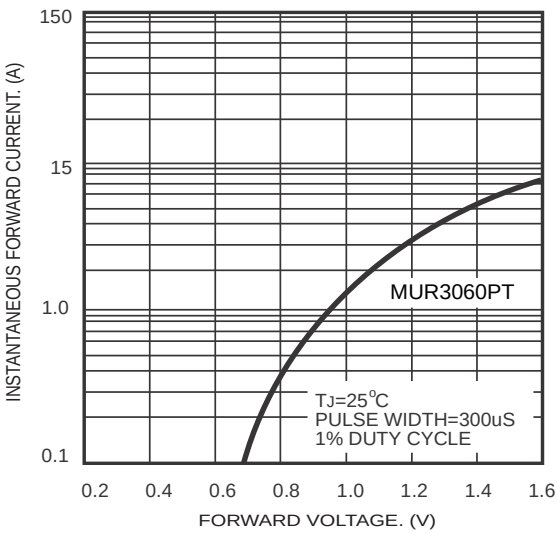
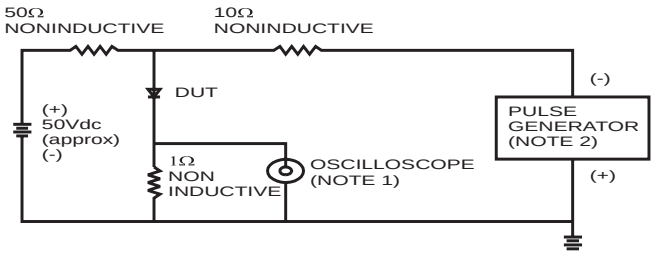


FIG.5.1- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG



RATINGS AND CHARACTERISTIC CURVES(Continued)

FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance= 50 ohms