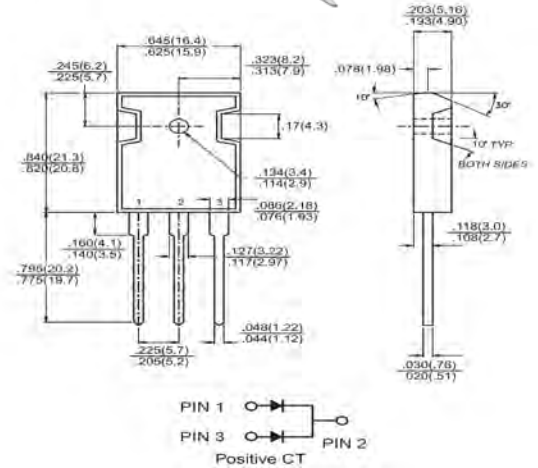




TO-247-3L



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) tension

Mechanical Data

- ◆ Case: JEDEC TO-247AB 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	MSR 3010PT	MSR 3015PT	MSR 3020PT	MSR 3030PT	MSR 3040PT	MSR 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°C	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°C at Rated DC Blocking Voltage @ Tc=100°C	I _R	10.0 500						uA uA
Maximum Reverse Recovery Time(Note 2) Tj=25°C	trr	35						nS
Typical Junction Capacitance (Note 1)	Cj	175.0						pF
Typical Thermal Resistance (Note 3)	RθJC	2.5						°C/W
Operating Junction Temperature Range	Tj	-55 to +150						°C
Storage Temperature Range	TSTG	-55 to +150						°C

- Notes:**
1. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
 2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, 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

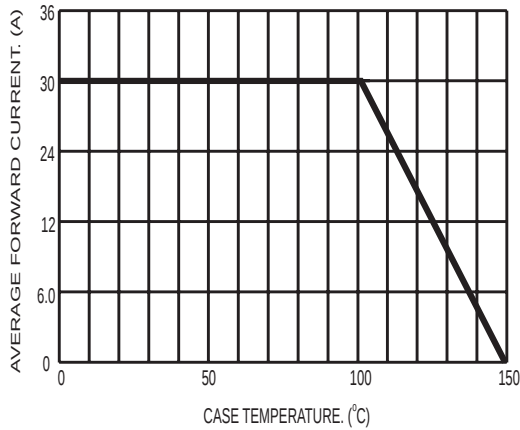


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

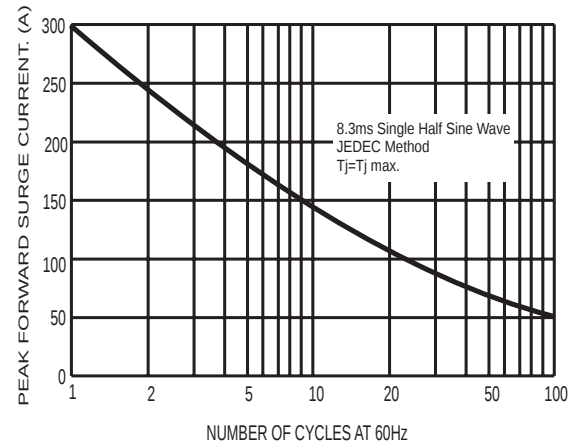


FIG.3- TYPICAL JUNCTION CAPACITANCE PER LEG

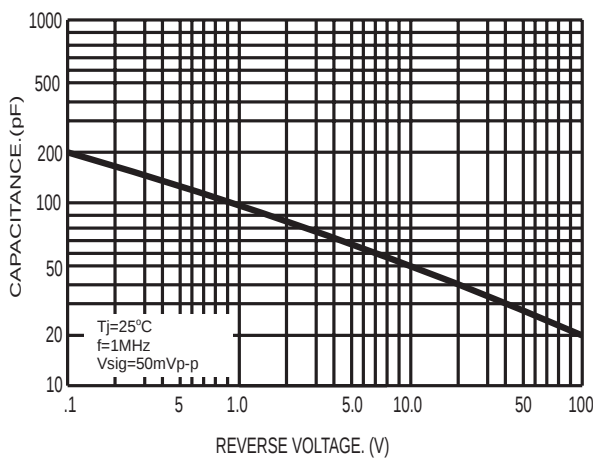


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

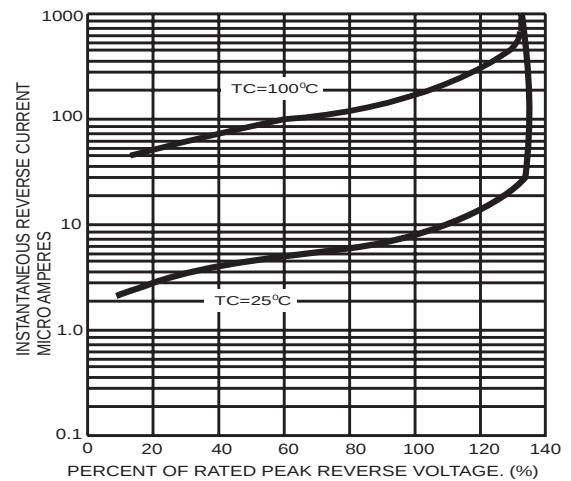


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

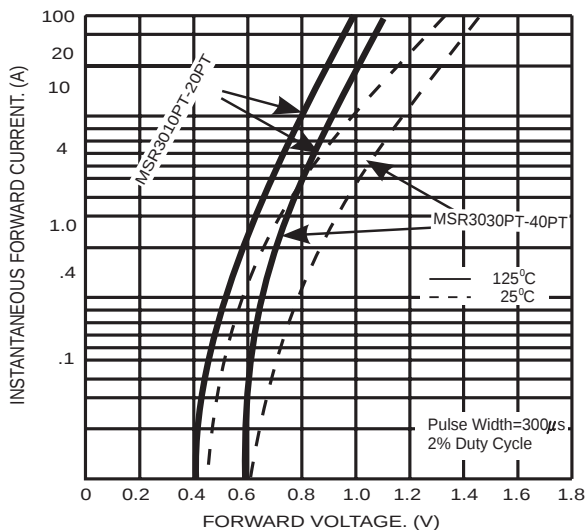
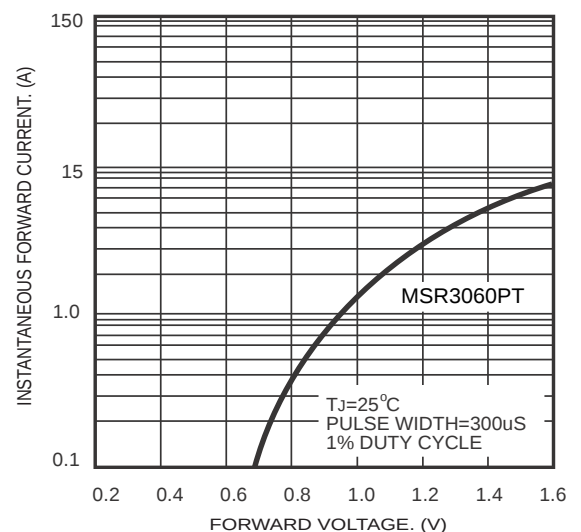
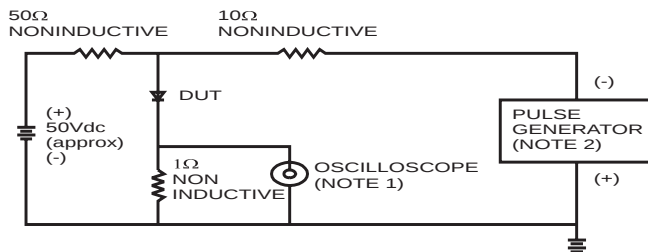


FIG.5.1- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

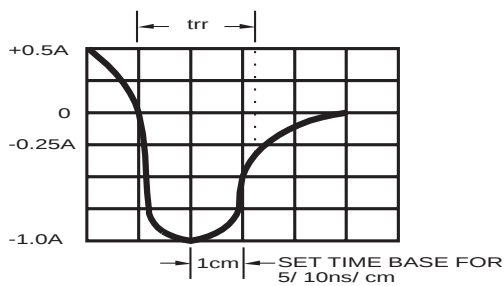


RATINGS AND CHARACTERISTIC CURVES(Continued)

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. Source Impedance= 50 ohms



Packge	Packing	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO-247	30pcs/Tube	570×155×50	450	580×340×125	1800