SF301PT THRU SF306PT

GLASS PASSIVATED SUPER FAST RECTIFIER

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HORNBY ELECTRONIC

REVERSE VOLTAGE: **50 to 400 VOLTS**

FORWARD CURRENT: **30.0 AMPERE**

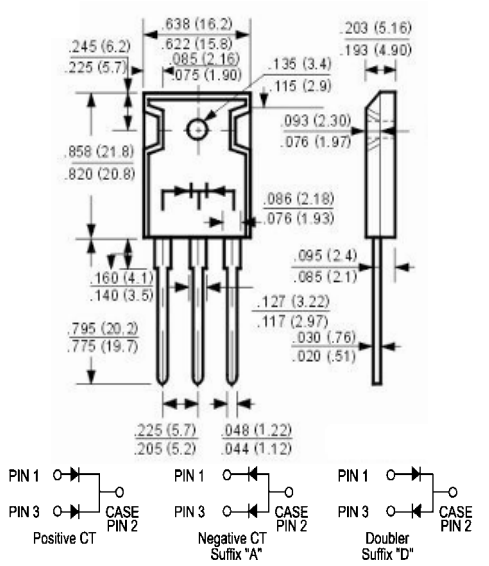
FEATURES

· Plastic package has Underwriters Laboratory Flammability Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.
· Superfast switching time for high efficiency
· Low forward voltage drop and high current capability
· High surge capacity.
· Low reverse leakage current

MECHANICAL DATA

Case: Molded plastic, TO-3P/TO-247AD
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
Polarity: As marked
Mounting position: Any
Weight: 0.2ounce, 5.6gram

TO-3P/TO-247AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*SF301PT*	*SF302PT*	*SF303PT*	*SF304PT*	*SF305PT*	*SF306PT*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	**Volts**
Maximum Average Forward Rectified Current at T_C=100℃	$I_{(AV)}$	30.0						**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200						**Amp**
Maximum Forward Voltage at 15.0A and T_A=25℃	V_F	0.95				1.3		**Volts**
Maximum Reverse Current at T_C=25℃ at Rated DC Blocking Voltage T_C=100℃	I_R	10.0 100						**uAmp**
Typical Junction Capacitance (Note 1)	C_J	100						**pF**
Maximum Reverse Recovery Time (Note 2)	T_{RR}	35				50		**nS**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150						℃

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

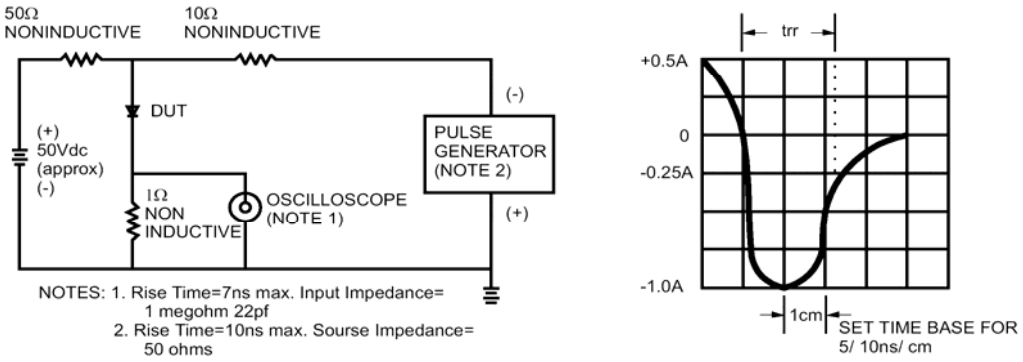

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

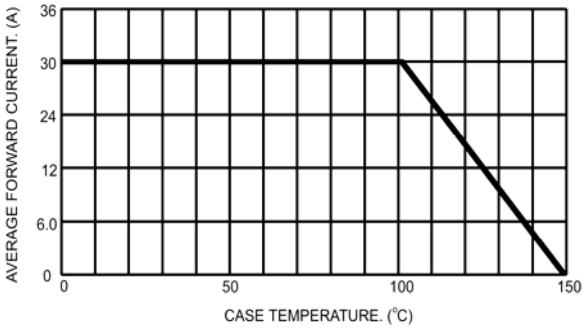

FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

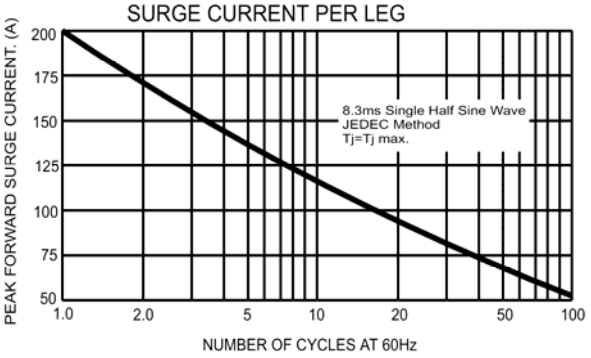

FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

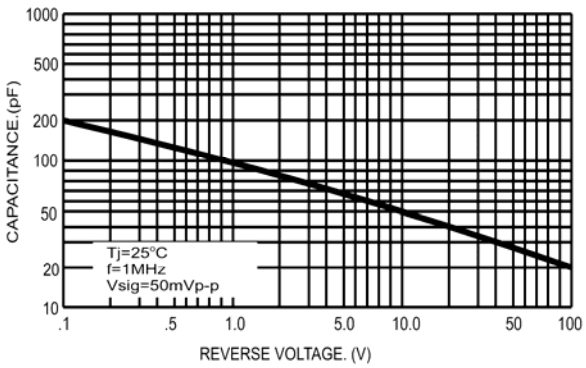

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

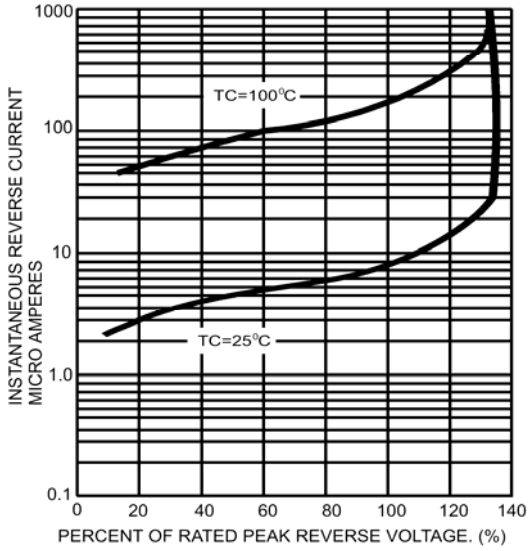

FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG