

SF301PT THRU SF306PT



康比電子
HORNBY ELECTRONIC

GLASS PASSIVATED SUPER FAST RECTIFIER

REVERSE VOLTAGE: 50 to 400 VOLTS
FORWARD CURRENT: 30.0 AMPERE

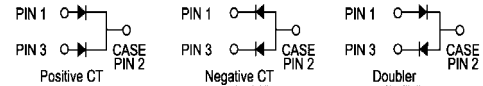
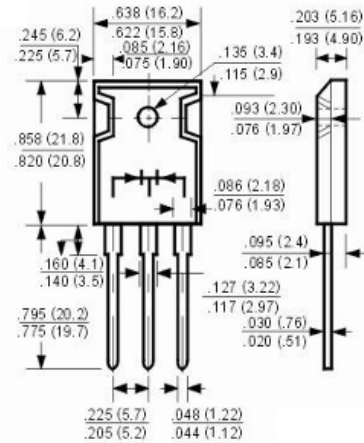
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing 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°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, 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 $T_C=100^\circ\text{C}$	$I_{(AV)}$	30.0						Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300						Amp
Maximum Forward Voltage at 15.0A and $T_A=25^\circ\text{C}$	V_F	0.95				1.3		Volts
Maximum Reverse Current at $T_C=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_C=100^\circ\text{C}$	I_R	10.0				500		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, T_{stg}	-55 to +150						°C

NOTES:

- 1- Measured at 1 MHz 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

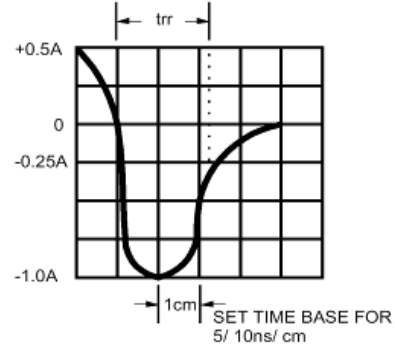
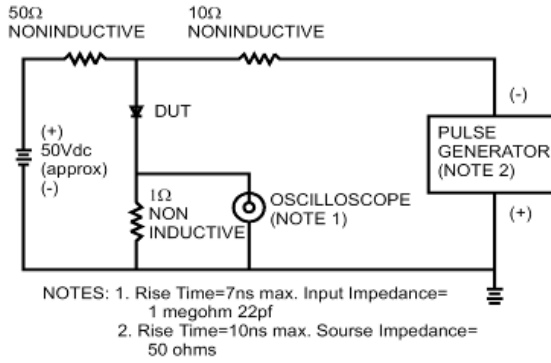


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

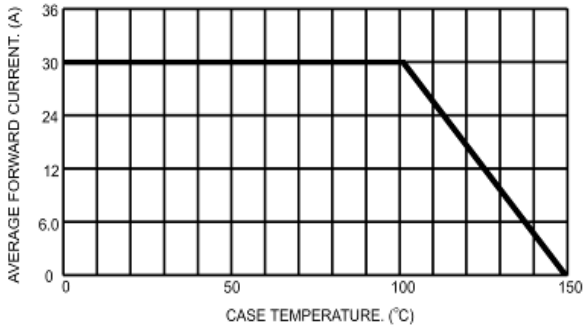


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

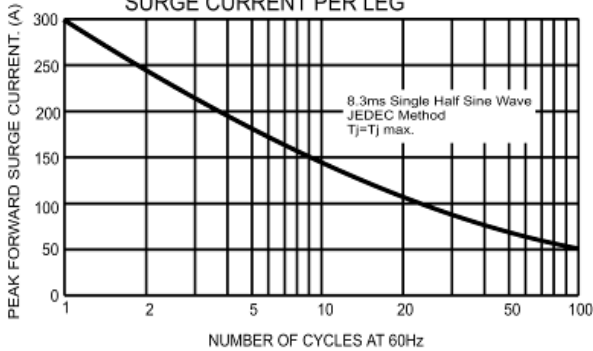


FIG.4- TYPICAL JUNCTION CAPACITANCE PER LEG

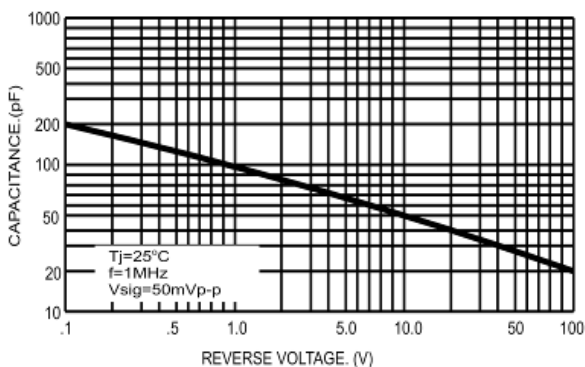


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

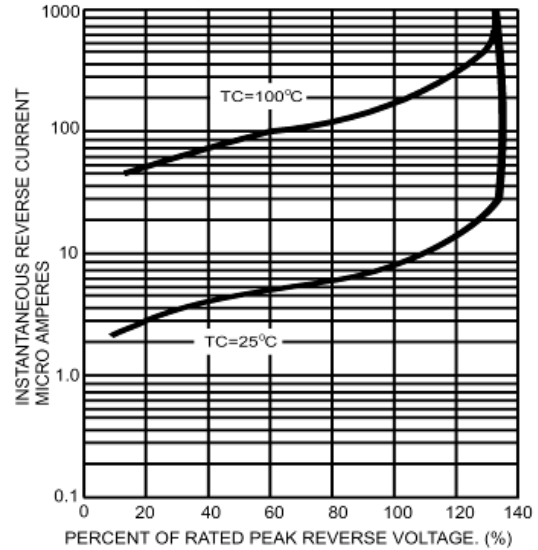


FIG.6- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

