

SF301 THRU SF306

CURRENT 30.0 Amperes
VOLTAGE 50 to 400 Volts

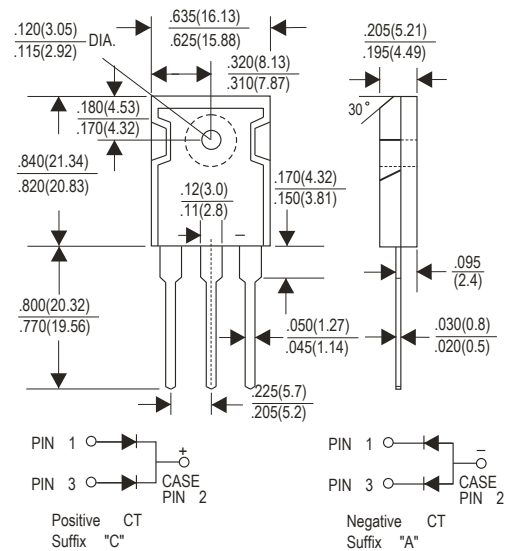
Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Super fast recovery time
- Good for use in switching mode circuits
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

Mechanical Data

- Case : JEDEC TO-3P molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : As marked
- Mounting Position : Any
- Weight : 0.2 ounce, 5.60 gram

TO-3P



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 by 20%)

		Symbols	SF301	SF302	SF303	SF304	SF305	SF306	Units
Maximum recurrent peak reverse voltage		VRRM	50	100	150	200	300	400	Volts
Maximum RMS voltage		VRMS	35	70	105	140	210	280	Volts
Maximum DC blocking voltage		VDC	50	100	150	200	300	400	Volts
Maximum average forward rectified current at Tc=100 °C		I(AV)	30.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	250						Amps
Maximum instantaneous forward voltage at 15.0A		VF	0.95			1.30			Volts
Maximum DC reverse current at rated DC blocking voltage	Tc=25 °C	IR	10						μA
	Tc=100 °C		500						
Maximum reverse recovery time (Note 1) TJ=25 °C		Trr	35						ns
Typical junction capacitance (Note 2)		CJ	175						pF
Operating junction and storage temperature range		TJ TSTG	-55 to +150 -55 to +150						°C

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES SF301 THRU SF306

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

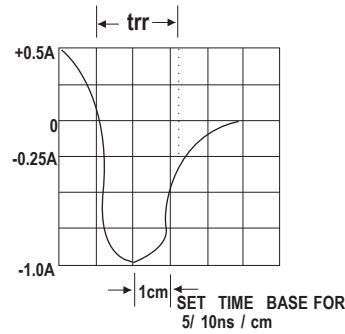
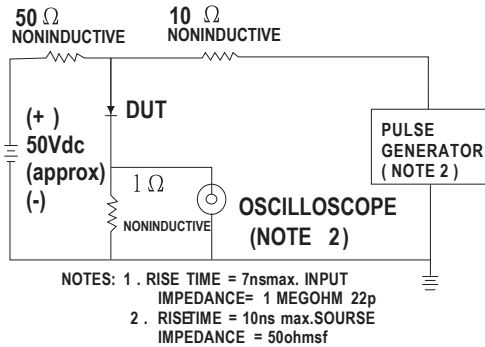


FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING CURVE

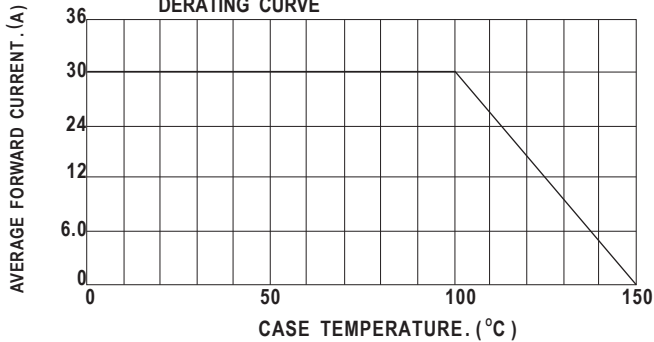


FIG . 3 -TYPICAL REVERSE CHARACTERISTICS PER LEG

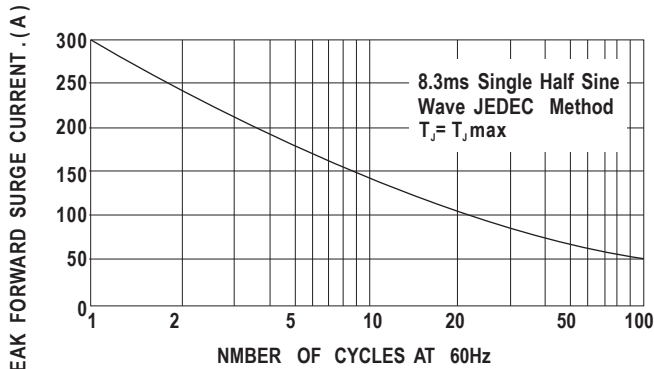
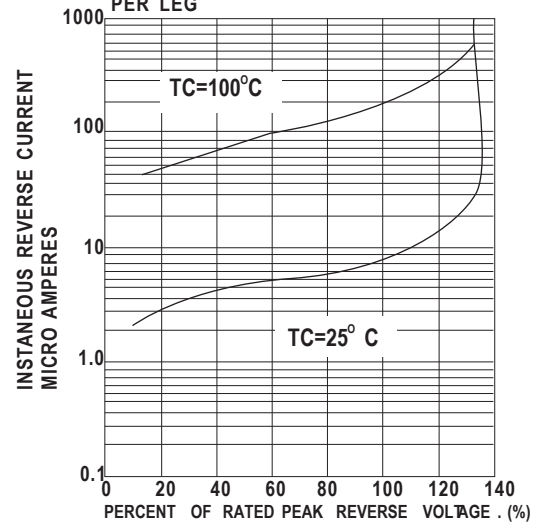


FIG . 6 -TYPICAL FRWARD CHARACTERISTICS PER LEG

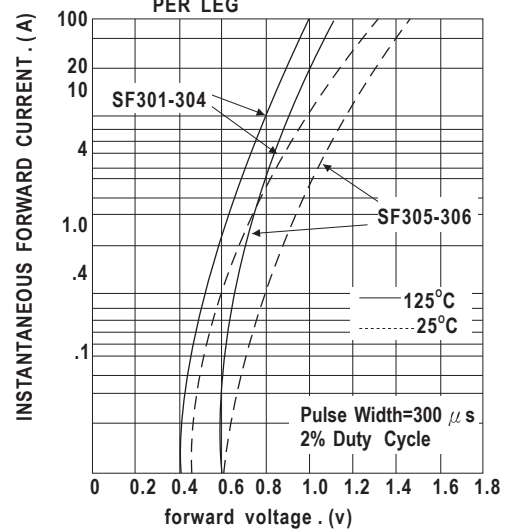


FIG . 5 -TYPICAL JUNCTION CAPACITANCE PER LEG

