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SFR301 THRU SFR307

3.0 AMPS. SOFT FAST RECOVERY RECTIFIERS

FEATURES

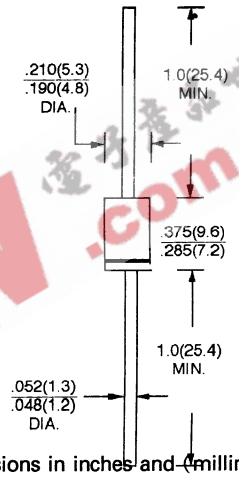
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting Position: Any
* Weight: 1.18 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
3.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SYMBOLS	SFR 301	SFR 302	SFR 303	SFR 304	SFR 305	SFR 306	SFR 307	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length @ T_A = 55℃	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	150							A
Maximum Instataneous Forward Voltage at 3.0A	V_F	1.2							V
Maximum D.C Reverse Current @ T_A = 25℃ at Rated D.C Blocking Voltage @ T_A = 100℃	I_R	10.0 200							μA μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	120				200	350		nS
Typical Junction Capacitance (Note 2)	C_J	60							pF
Operating Temperature Range	T_J	−65 to +125							℃
Storage Temperature Range	T_{STG}	−65 to +150							℃

NOTES: 1. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0V D.C.

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RATINGS AND CHARACTERISTIC CURVES (SFR301 THRU SFR307)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

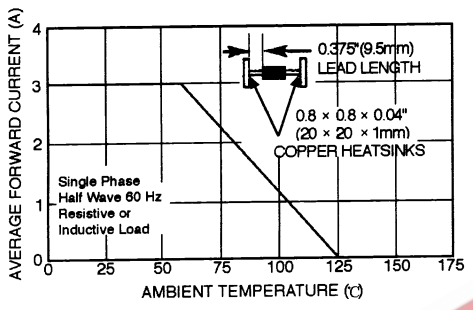

FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

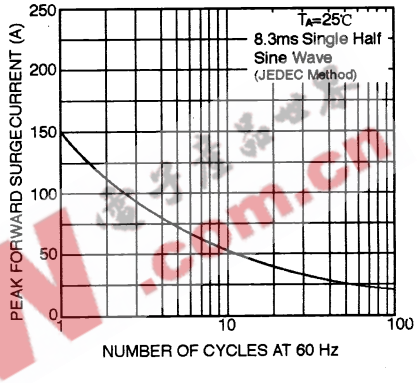

FIG.3-TYPICAL FORWARD CHARACTERISTICS

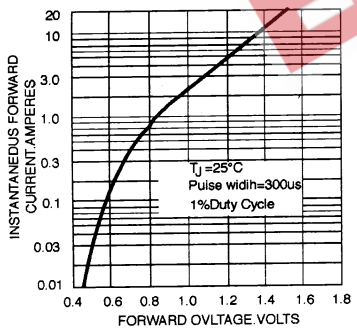

FIG.4-TYPICAL JUNCTION CAPACITANCE

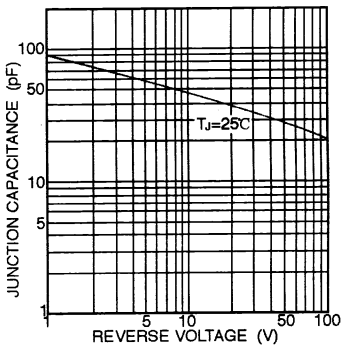

FIG.5 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS