



SFR1A1 THRU SFR1A7

1.0 AMP. SOFT FAST RECOVERY RECTIFIERS

<p style="text-align: center;">FEATURES</p> <ul style="list-style-type: none"> * Low forward voltage drop * High current capability * High reliability * High surge current capability <p style="text-align: center;">MECHANICAL DATA</p> <ul style="list-style-type: none"> * 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: 0.20 grams 	<p style="text-align: center;">VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere</p> <div style="text-align: center;"> </div> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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 1A1	SFR 1A2	SFR 1A3	SFR 1A4	SFR 1A5	SFR 1A6	SFR 1A7	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 @ $T_A = 40^\circ C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	25							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.2							V
Maximum D. C Reverse Current @ $T_A = 25^\circ C$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ C$	I_R	5.0 100							μA μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	120			200		350		nS
Typical Junction Capacitance (Note 2)	C_J	15							pF
Operating Temperature Range	T_J	- 65 to + 125							$^\circ C$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^\circ C$

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.



RATINGS AND CHARACTERISTIC CURVES (SFR1A1 THRU SFR1A7)

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

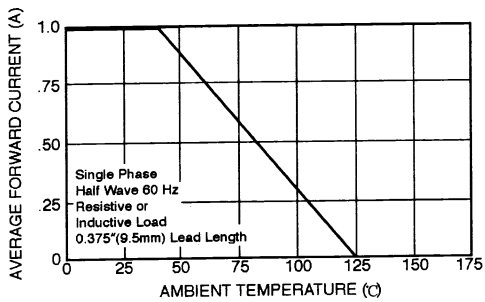


FIG. 2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

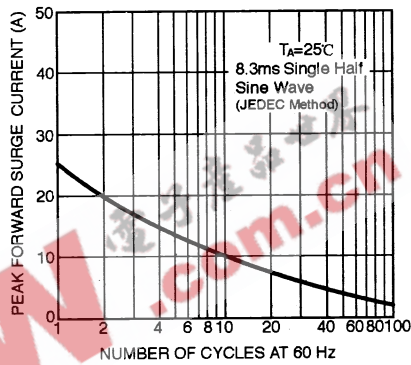


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

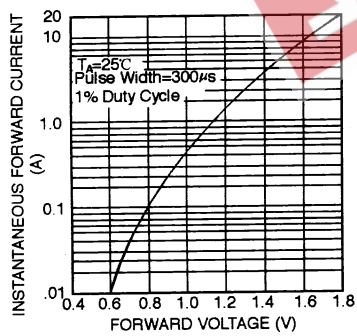


FIG. 4-TYPICAL JUNCTION CAPACITANCE

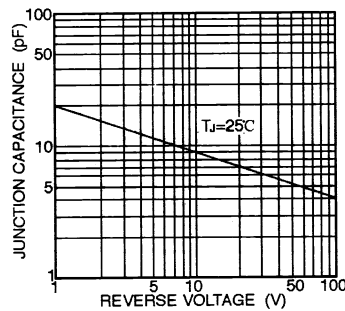


FIG. 5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

