



SFR151 THRU SFR157

1.5 AMPS. SOFT FAST RECOVERY RECTIFIERS

VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.5 Amperes

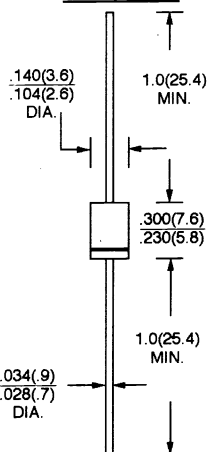
FEATURES

- * 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: 0.40 grams

DO-15



Dimensions in inches and (millimeters)

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 151	SFR 152	SFR 153	SFR 154	SFR 155	SFR 156	SFR 157	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 @ $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.2							V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$	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	30							pF
Operating Temperature Range	T_J	- 65 to + 125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (SFR151 THRU SFR157)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

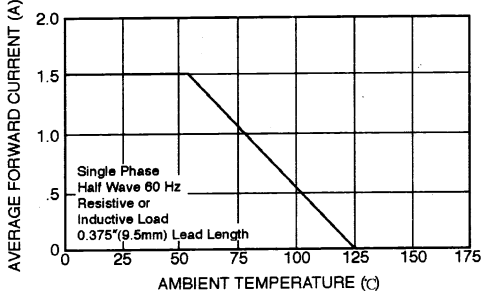


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

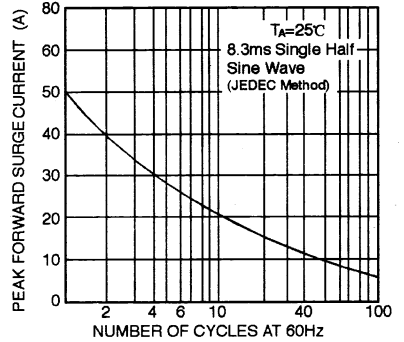


FIG.3-TYPICAL FORWARD CHARACTERISTICS

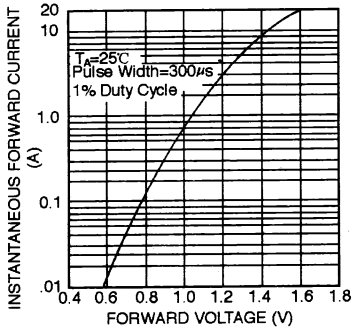


FIG.4-TYPICAL JUNCTION CAPACITANCE

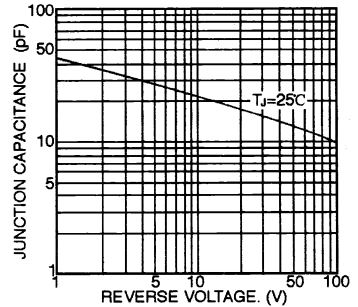


FIG.5 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

