



SFA11 THRU SFA16

1.0 AMP. SUPER FAST 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: 0.20 grams

VOLTAGE RANGE
50 to 400 Volts
CURRENT
1.0 Ampere

R-1

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	SFA11	SFA12	SFA13	SFA14	SFA15	SFA16	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	150	200	300	400	V
Maximum Average Forward 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	0.95				1.25		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				50		μA μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	35						nS
Typical Junction Capacitance (Note 2)	C_J	50				25		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 (SFA11 THRU SFA16)

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

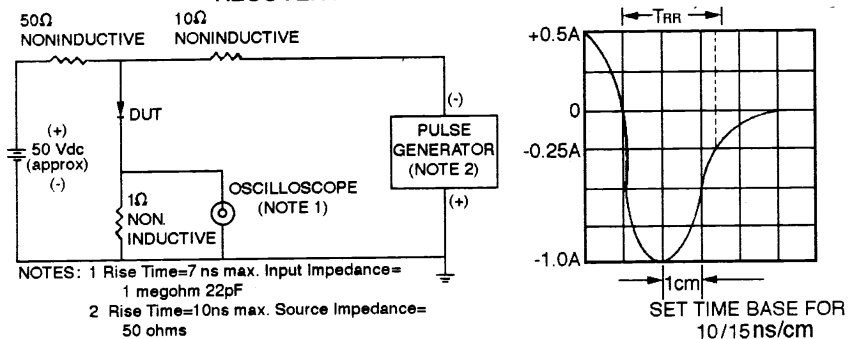


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

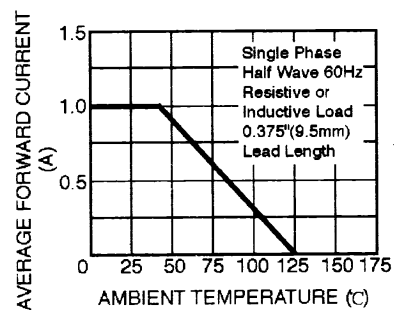


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

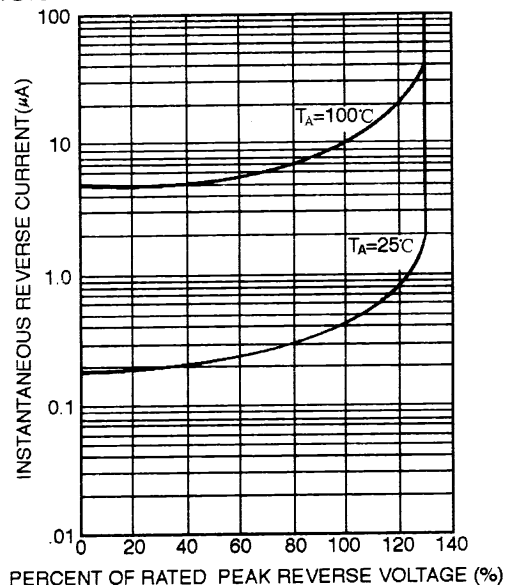


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

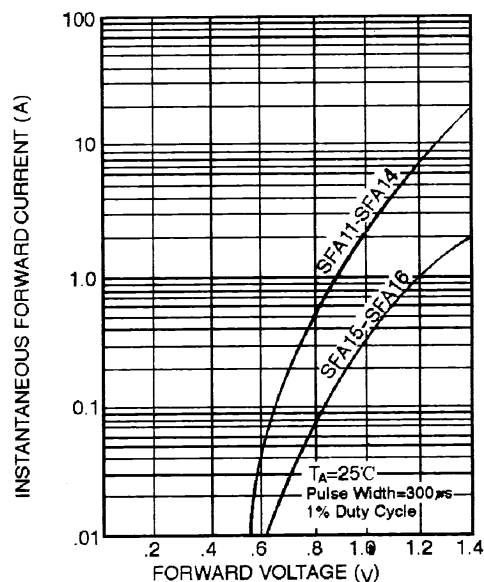


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

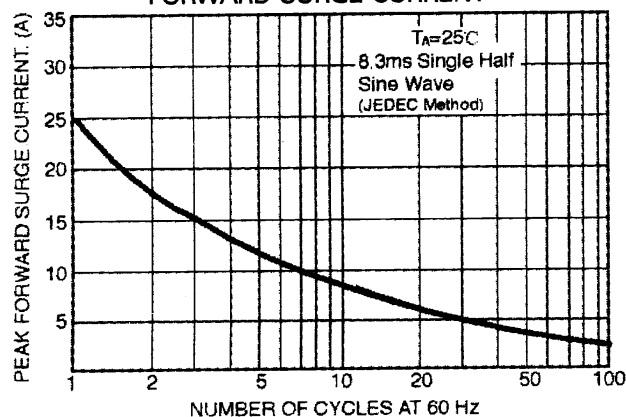


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

