JGD

SFA11 THRU SFA16

1.0 AMP. SUPER FAST RECTIFIERS

VOLTAGE RANGE
50 to 400 Volts
CURRENT
1.0 Ampere

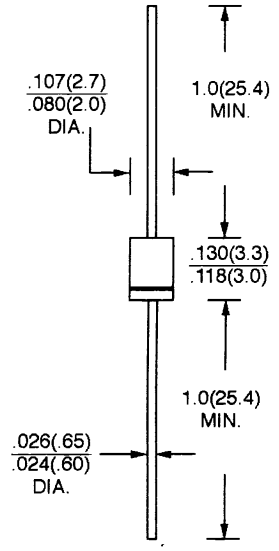
FEATURES

* Low forward voltage drop
* Hight 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

R-1



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	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 @ $T_A = 40℃$	$I_{F(AV)}$	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 @ $T_A = 25℃$ at Rated D.C Blocking Voltage @ $T_A = 100℃$	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						℃
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.

RATINGS AND CHARACTERISTIC CURVES (SFA11 THRU SFA16)

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

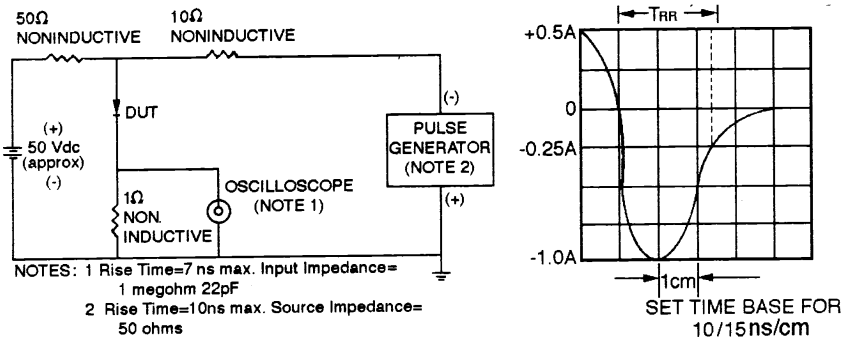


FIG.2 – TYPICAL FORWARD CURRENT DERATING CURVE

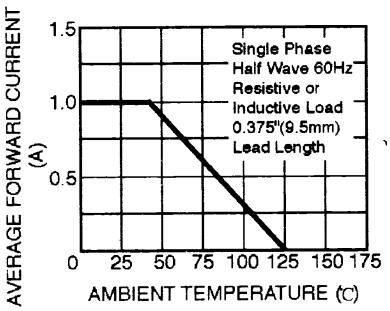


FIG.3 – TYPICAL REVERSE CHARACTERISTICS

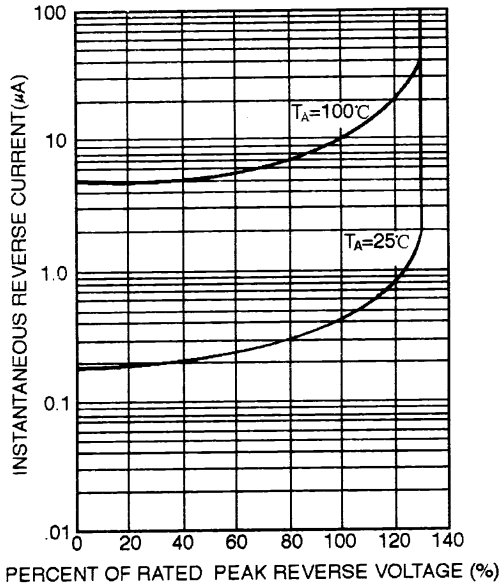


FIG.4 – TYPICAL FORWARD CHARACTERISTICS

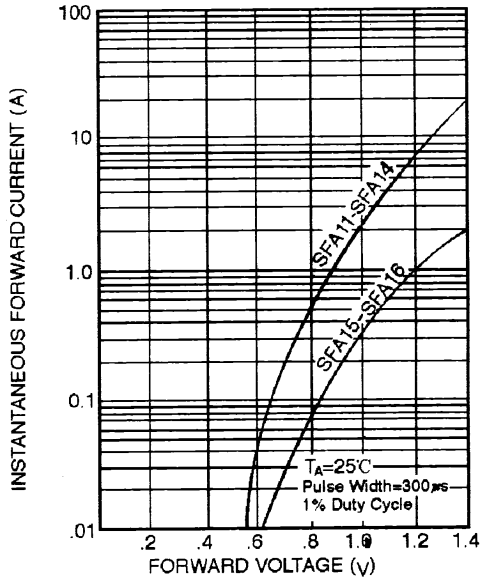


FIG.5 – MAXIMUM NON – REPETITIVE FORWARD SURGE CURRENT

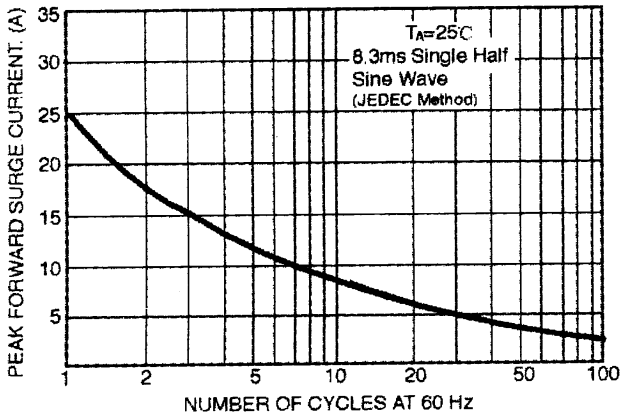


FIG.6 – TYPICAL JUNCTION CAPACITANCE