

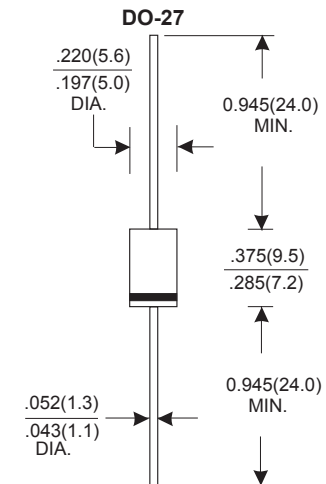
3.0 AMP SUPER FAST RECTIFIERS

Features:

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Good for switching mode application

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: 1.10 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn, 5~20%Pb
- * Pb free: 99 Sn above can meet Rohs environment substance directive request



Dimensions in inches and (millimeters)

Marking

- SF3X

X : From 1 To 8

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

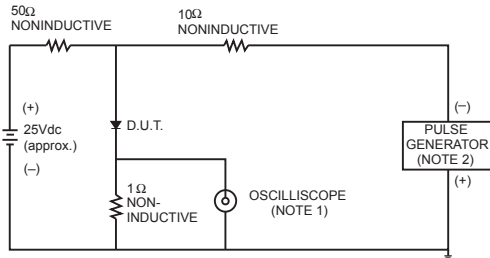
TYPE NUMBER	SF31	SF32	SF33	SF34	SF35	SF36	SF38	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55 °C	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 3.0A	0.95				1.25	1.70		V
Maximum DC Reverse Current Ta=25 °C	5.0							μA
at Rated DC Blocking Voltage Ta=100 °C	50							μA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	50							pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 — +150							°C

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (SF31 THRU SF38)

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
 2. Rise Time= 10ns max., Source Impedance= 50 ohms.

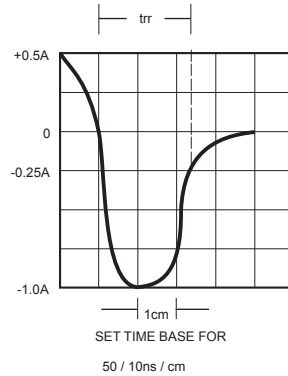


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

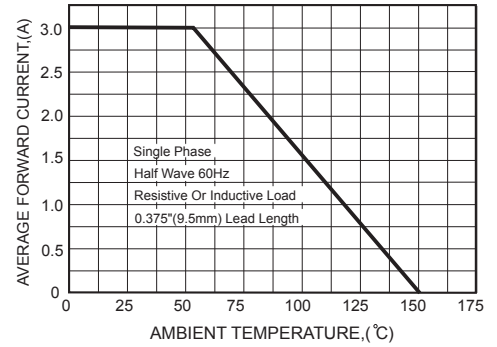


FIG.3-TYPICAL FORWARD CHARACTERISTICS

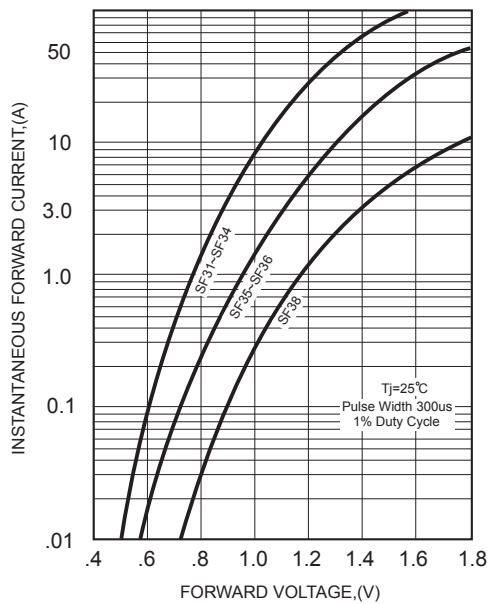


FIG.4-TYPICAL REVERSE CHARACTERISTICS

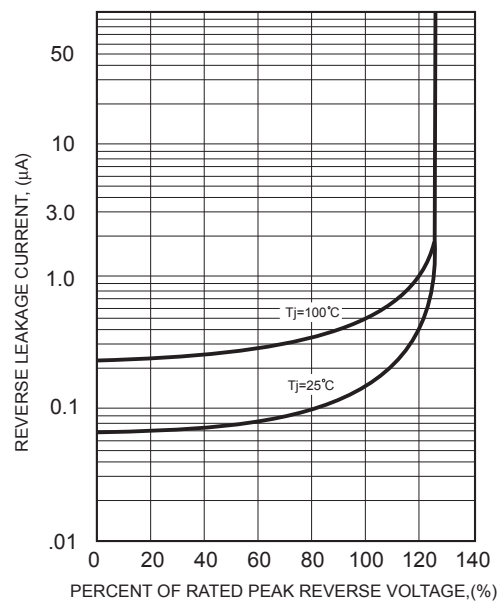


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

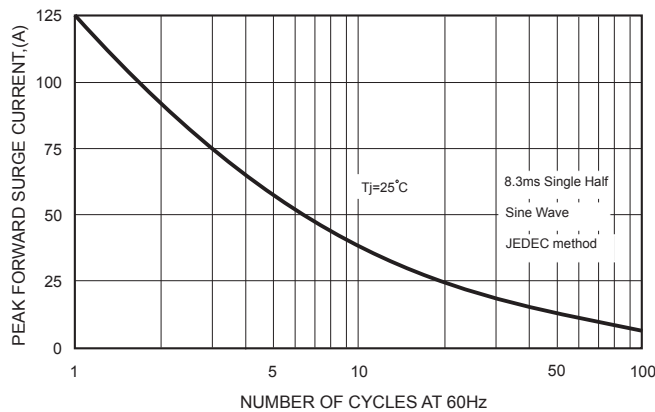


FIG.6-TYPICAL JUNCTION CAPACITANCE

