



Elektronische Bauelemente

# SF11 THRU SF15

VOLTAGE 50V ~ 600V  
1.0 AMP Super Fast Rectifiers

RoHS Compliant Product

A suffix of "-C" specifies halogen-free



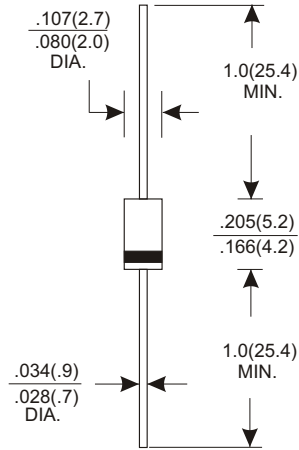
DO-41

## 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 Lead, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.34 grams



Dimensions in inches and (millimeters)

## 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%.

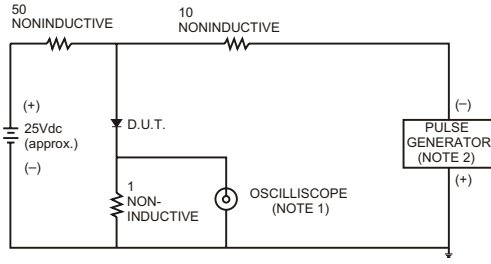
TYPE NUMBER	SF11	SF12	SF13	SF14	SF15	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
Maximum DC Blocking Voltage	50	100	200	400	600	V
Maximum Average Forward Rectified Current, .375"(9.5mm) Lead Length at Ta=55 °C	1.0					A
Peak Forward Surge Current, 8.3 ms single half Sine-wave superimposed on rated load (JEDEC method)	30		25			A
Maximum Instantaneous Forward Voltage at 1.0A	0.95		1.30		1.70	V
Maximum DC Reverse Current Ta=25 °C	5.0					µA
At Rated DC Blocking Voltage Ta=100 °C	50					
Maximum Reverse Recovery Time (Note 1)	35					ns
Typical Junction Capacitance (Note 2)	50					pF
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>STG</sub>	-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 (SF11 THRU SF15)**

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.

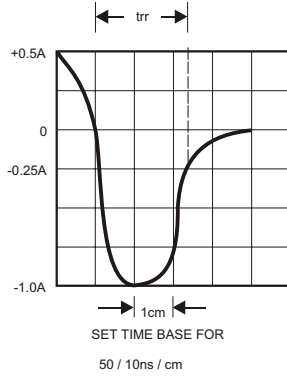


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

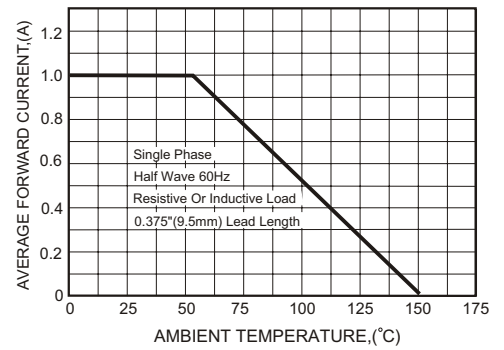


FIG.3-TYPICAL FORWARD CHARACTERISTICS

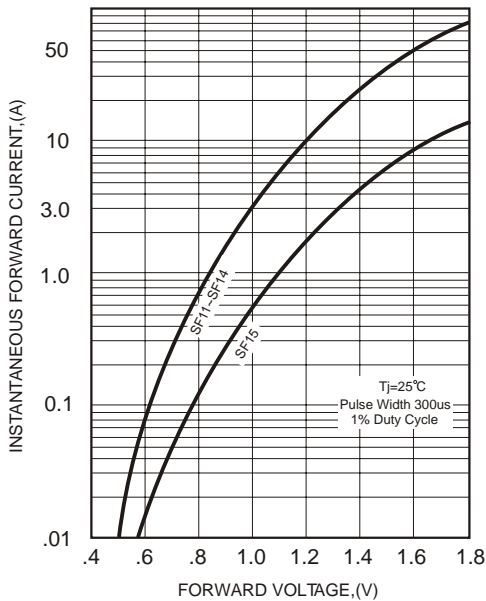


FIG.4-TYPICAL REVERSE CHARACTERISTICS

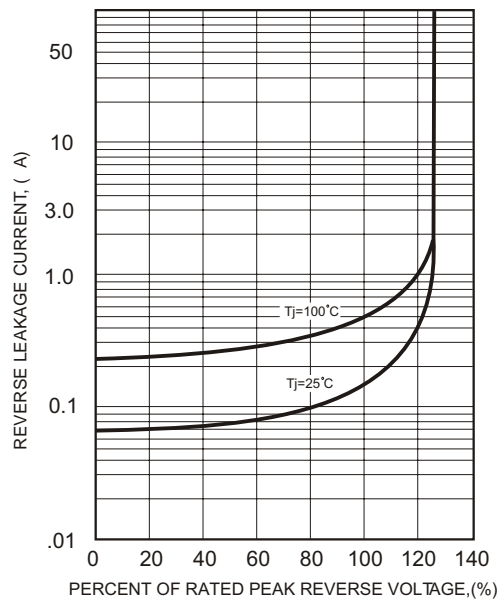


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

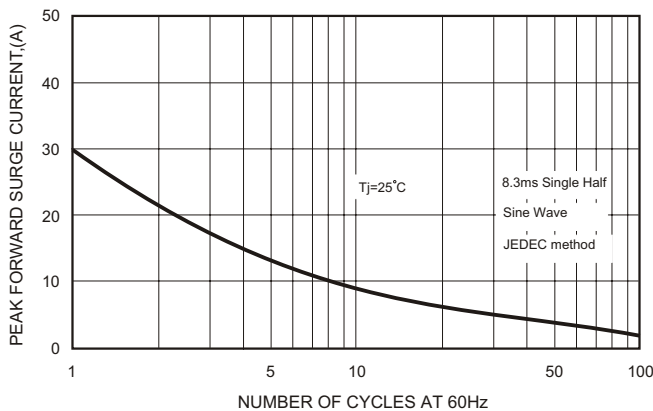


FIG.6-TYPICAL JUNCTION CAPACITANCE

