WEITRON

SF11 thru SF18

Axial Lead Super Fast Rectifier

Lead(Pb)-Free

REVERSE VOLTAGE
50-600 VOLTS
CURRENT
1.0 AMPERE

Features:

* Low forward voltage drop.
* High current capability.
* High reliability.
* High surge current capability.

DO-41

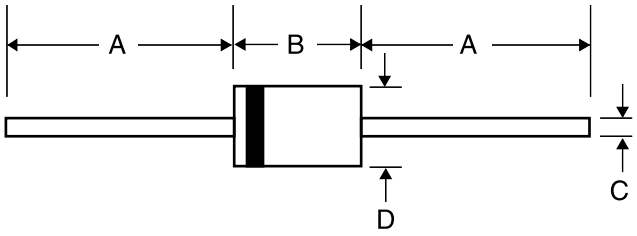
Mechanical Data:

* Case: Molded plastic.
* Epoxy: UL 94V-0 rate flame retardant.
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed.
* Polarity: Color band denotes cathode end.
* Mounting position: Any.
* Weight: 0.34 grams.

DO-41 Outline Dimensions

Unit:mm

Axial Device (Through-Hole)



	A		B		C		D	
Dim	Min	Max	Min	Max	Min	Max	Min	Max
DO-41	25.40	-	4.06	5.20	0.70	0.90	2.00	2.70

Maximum Rating

Characteristic	Symbol	SF11	SF12	SF13	SF14	SF15	SF16	SF17	SF18	Uuits
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current	I_{AV}	1.0								A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load	I_{FSM}	30								A
Operating junction temperature range	T_J	+150								°C
Storage temperature range	T_{STG}	-65 to +150								°C

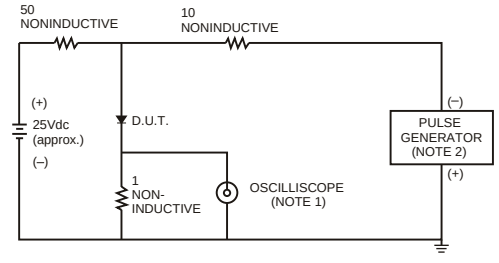
Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Reverse Recovery Time test condition : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Electrical Characteristic

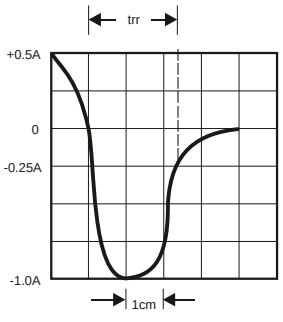
Characteristic	Symbol	SF11	SF12	SF13	SF14	SF15	SF16	SF17	SF18	Uuits
Maximum Instanatneous Forward Voltage I_F=1.0A	V_F	0.95				1.25		1.50		V
Maximum DC Reverse Current Rated DC Blocking Voltage, T_A=25°C T_A=100°C	I_R	5.0 50								µA
Typical Junction Capacitance	C_P	50								pF
Maximum Reverse Recovery Time	T_{rr}	35								nS

RATINGAND CHARACTERISTIC CURVES



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

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY



TIME CHARACTERISTIC

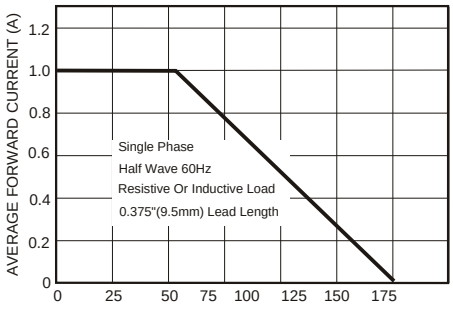


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

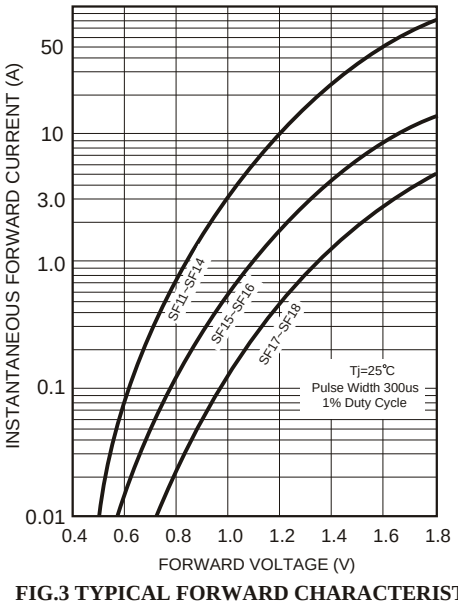


FIG.3 TYPICAL FORWARD CHARACTERISTICS

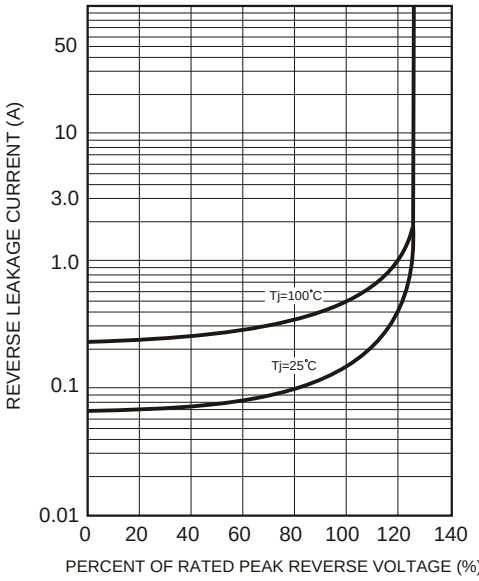


FIG.4 TYPICAL REVERSE CHARACTERISTICS

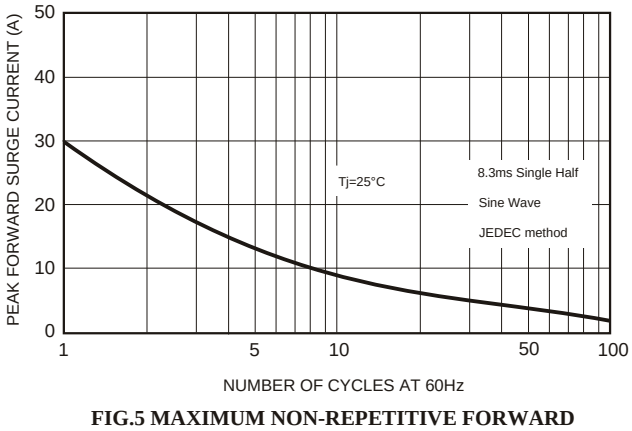


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

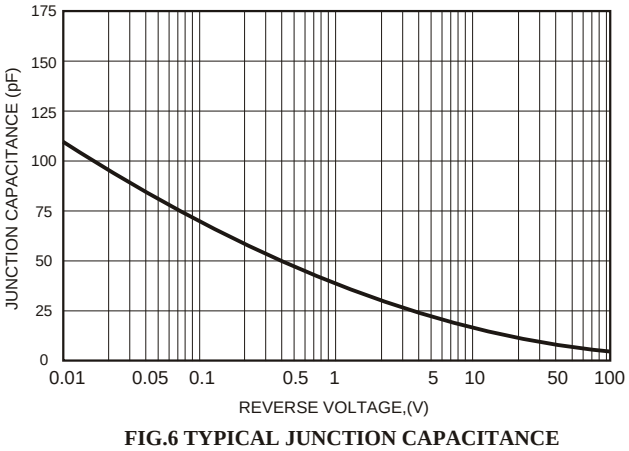


FIG.6 TYPICAL JUNCTION CAPACITANCE