

Axial Lead Super Fast Rectifier

(Pb) Lead(Pb)-Free

Features:

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

REVERSE VOLTAGE
50-600 VOLTS
CURRENT
1.0 AMPERE



DO-41

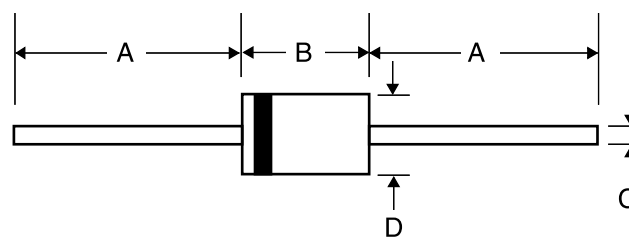
Mechanical Data:

- * 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)



Dim	A		B		C		D	
	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	Units
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

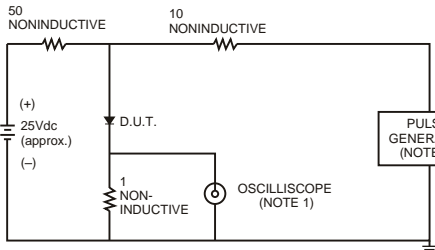
Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Electrical Characteristic

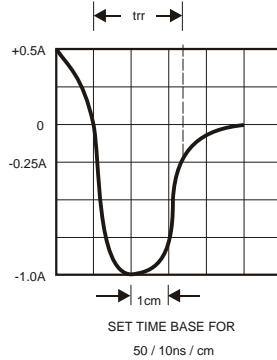
Characteristic	Symbol	SF11	SF12	SF13	SF14	SF15	SF16	SF17	SF18	Units
Maximum Instantaneous Forward Voltage $I_F=1.0A$	V_F	0.95				1.25		1.50		V
Maximum DC Reverse Current Rated DC Blocking Voltage, $T_A=25^\circ C$ $T_A=100^\circ C$	I_R					5.0 50				μA
Typical Junction Capacitance	C_P					50				pF
Maximum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

RATING AND 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

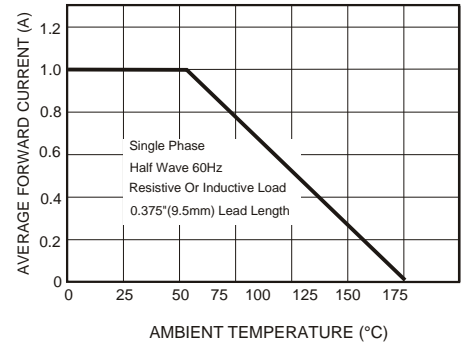


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

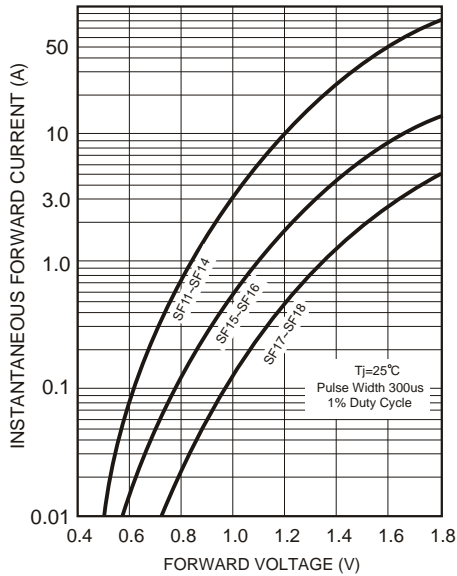


FIG.3 TYPICAL FORWARD CHARACTERISTICS

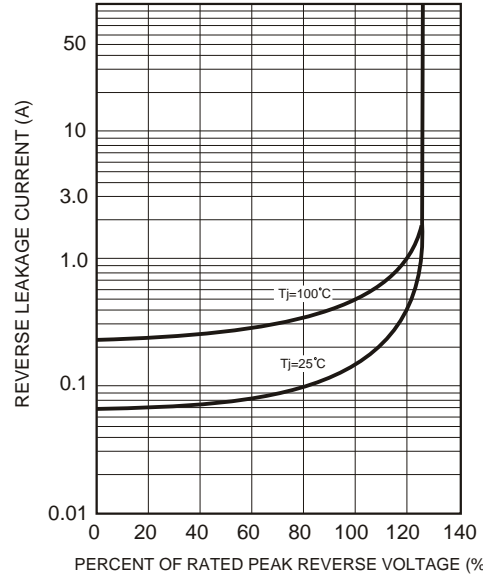


FIG.4 TYPICAL REVERSE CHARACTERISTICS

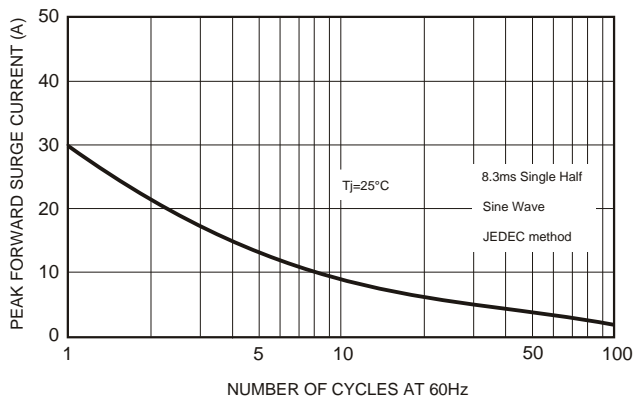


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

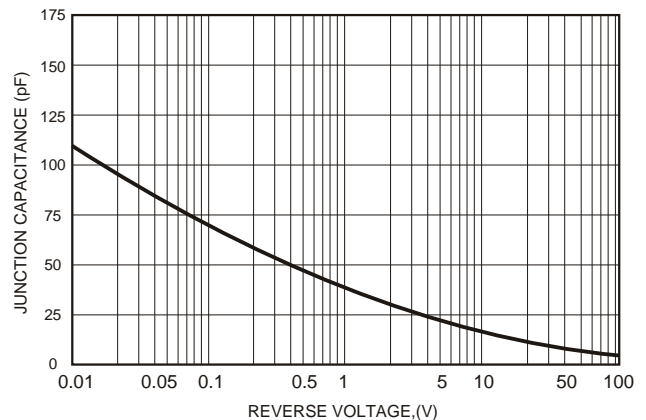


FIG.6 TYPICAL JUNCTION CAPACITANCE