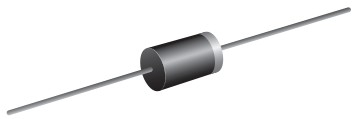
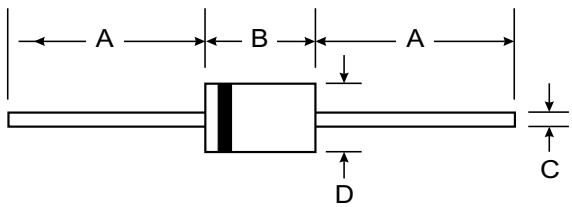
SF21 - SF28

SUPER FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 50 - 600V
CURRENT: 2.0A





Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol,Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

Mechanical Data

- Case : DO-15 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram

RoHS COMPLIANT

DO-15		
Dim	**Min**	**Max**
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

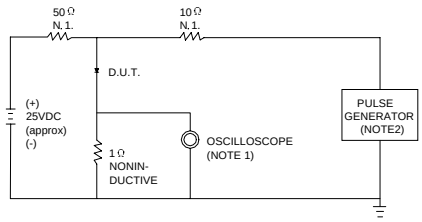
Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

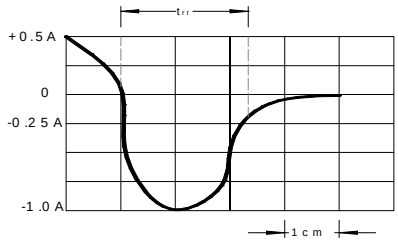
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		SF21	SF22	SF23	SF24	SF25	SF26	SF27	SF28	UNITS
Maximum recurrent 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 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	50								A
Maximum instantaneous forward voltage @ 2.0A	V_F	0.95				1.3		1.7		V
Maximum reverse current @T_A=25℃	I_R	5.0								μA
at rated DC blocking voltage @T_A=125℃		50.0								
Maximum reverse recovery time (Note1)	t_{rr}	35								ns
Typical junction capacitance (Note2)	C_J	60				30				pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	20								℃/W
Operating junction temperature range	T_J	- 55 ----- + 125								℃
Storage temperature range	T_{STG}	- 55 ----- + 150								℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1.0MH_Z and applied reverse voltage of 4.0V DC.
3. Thermal resistance from junction to ambient.

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

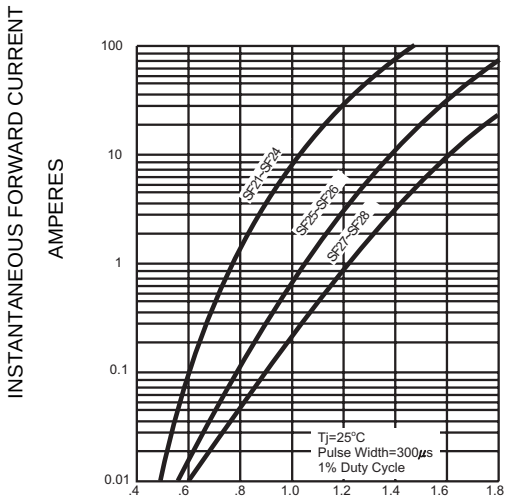




NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ .22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

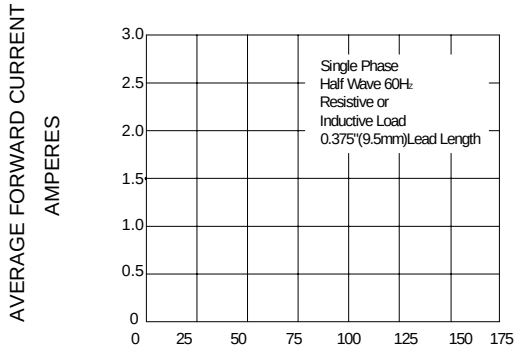
SET TIME BASE FOR 10 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC



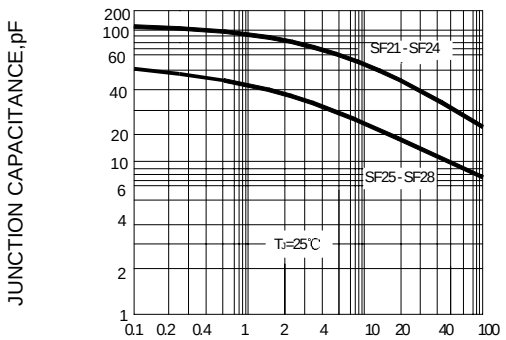
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 -- FORWARD DERATING CURVE



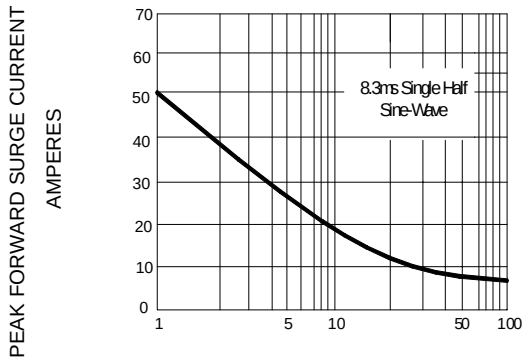
AMBIENT TEMPERATURE, ℃

FIG.4 -- TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS

FIG.5 -- PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz