GOOD-ARK

SF101 THRU SF109

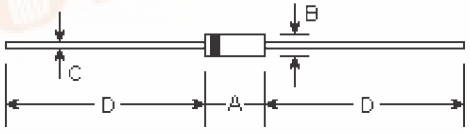
SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.0 Ampere

Features

- Superfast recovery times
- Low forward voltage, high current capability
- Hermetically sealed
- Low leakage
- High surge capability
- Plastic package has Underwriters Laboratories Flammability classification 94V-0 utilizing Flame retardant epoxy molding compound

DO-41



Mechanical Data

- **Case:** Molded plastic, DO-41
- **Terminals:** Axial leads, solderable to MIL-STD-202, method 208
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.012 ounce, 0.33 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	ф
C	0.028	0.034	0.71	0.86	ф
D	1.000	-	25.40	-	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

	Symbols	SF 101	SF 102	SF 103	SF 104	SF 105	SF 106	SF 107	SF 108	SF 109	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	Volts
Maximum average forward current 0.375" (9.5mm) lead length at T_A=55℃	$I_{(AV)}$	1.0									Amp
Peak forward surge current, I_{FM} (surge): 8.3mS single half sine-wave Superimposed on rated load (MIL-STD-750D 4066 method)	I_{FSM}	30.0									Amps
Maximum forward voltage at 1.0A DC	V_F	0.95				1.25		1.40			Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃ T_A=125℃	I_R	5.0 400.0									μ A
Maximum reverse recovery time (Note 1)	T_{rr}	35.0									nS
Typical junction capacitance (Note 2)	C_J	22.0									ρ F
Typical thermal resistance (Note 3)	$R_{\theta JA}$	50.0									℃/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +150									℃

Notes:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Measured at 1.0MHz and applied reverse voltage of 4.0 VDC
(3) Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES

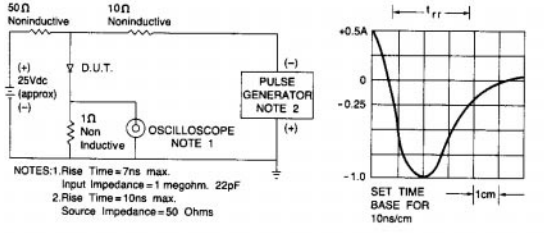


Fig. 1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

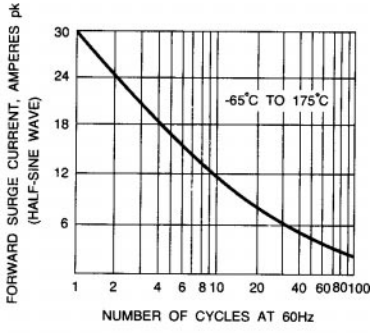


Fig. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

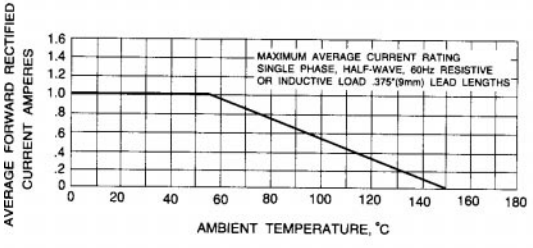


Fig. 3 – MAXIMUM AVERAGE FORWARD CURRENT RATING

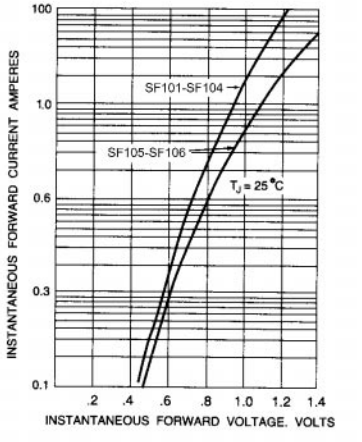


Fig. 4 – TYPICAL JUNCTION CAPACITANCE

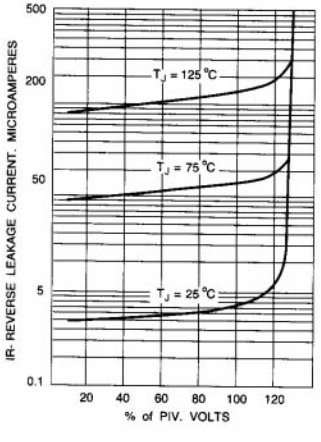


Fig. 5 – TYPICAL REVERSE CHARACTERISTICS

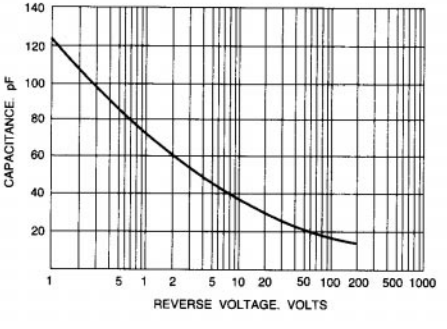


Fig. 6 – TYPICAL JUNCTION CAPACITANCE