DEC

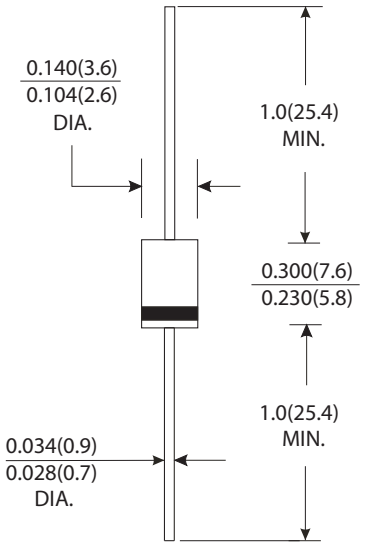
SF21 THRU SF27

CURRENT 2.0 Amperes
VOLTAGE 50 to 600 Volts

Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Super fast recovery time
- Good for use in switching mode circuits
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

DO-15



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC DO-15 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.014 ounce, 0.40 gram

Maximum Ratings And Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	SF21	SF22	SF23	SF24	SF25	SF26	SF27	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at T_A=55℃	$I_{(AV)}$	2.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							Amps
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.30		1.70	Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃	I_R	5.0							μA
Maximum DC reverse current at rated DC blocking voltage T_A=100℃	I_R	100							μA
Maximum reverse recovery time (Note 1)	Trr	35							ns
Typical junction capacitance (Note 2)	C_J	60				30			pF
Operating junction and storage temperature range	T_J T_{STG}	-55 to +125 -55 to +150							℃

Notes:

(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.

(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

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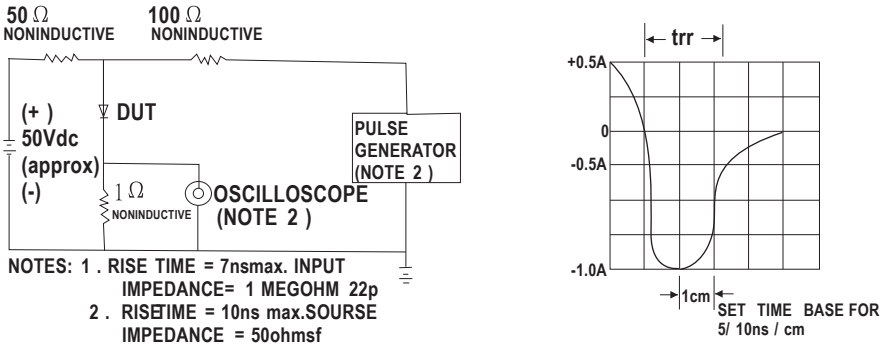
RATINGS AND CHARACTERISTIC CURVES SF21 THRU SF27

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



NOTES: 1 . RISE TIME = 7nsmax. INPUT IMPEDANCE= 1 MEGOHM 22p
2 . RISETIME = 10ns max.SOURSE IMPEDANCE = 50ohmsf

FIG . 2 -MAXIMUM AVERAGE FORWARD CURRENT DERATING

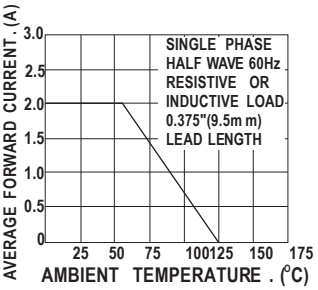


FIG . 3 -TYPICAL REVERSE CHARACTERISTICS

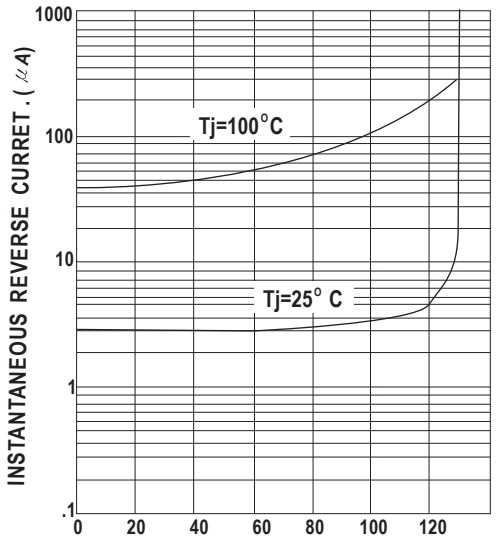


FIG . 4 -TYPICAL REVERSE CHARACTERISTICS

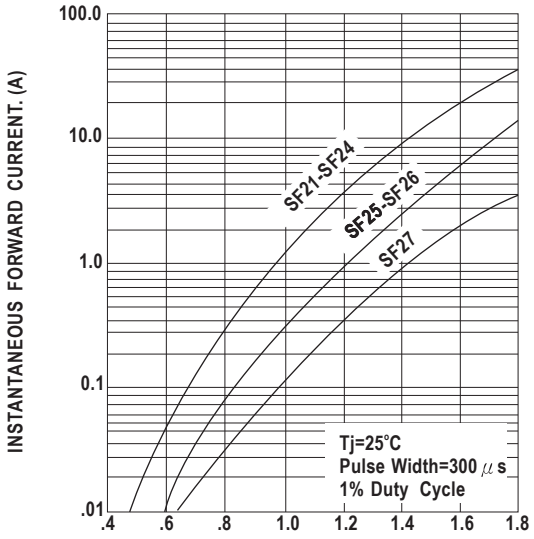


FIG . 5 - MAXIMUM NON- REPETITIVE FORWARD SUREG CURRENT

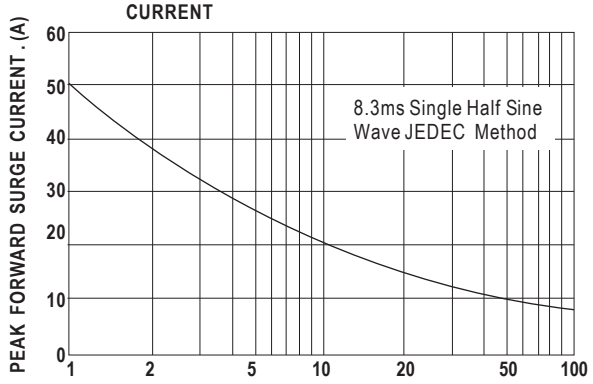


FIG . 6 - TYPICAL JUNCTION CAPACITANCE