

SF21 thru SF26

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- * Cavity-free glass passivated junction
- * Ultrafast recovery time for high efficiency
- * Soft recovery characteristics
- * Excellent high temperature switching
- * High temperature soldering guaranteed: 260°C/10 seconds

Mechanical Data

Case: JEDEC DO-15, molded plastic over glass die

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.015 oz., 0.40 g

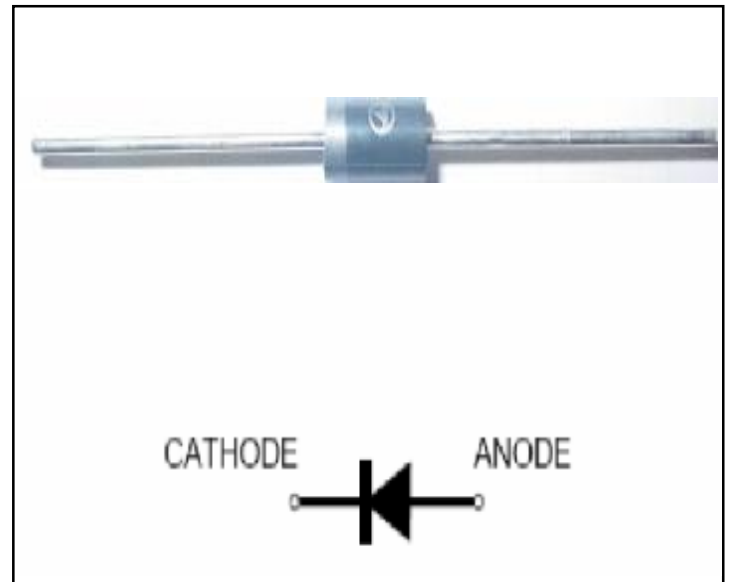
Handling precaution: None

Glass Passivated Junction

Super Fast Rectifiers

Reverse Voltage 50 to 400V

Forward Current 2.0A



Dimensions in inches and (millimeters)

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF 21	SF 22	SF 23	SF 24	SF 25	SF 26	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 75^\circ\text{C}$	$I_{F(AV)}$	2.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	75						A
Typical thermal resistance (Note 2)	$R\theta JA$	45						$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150						$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF 21	SF 22	SF 23	SF 24	SF 25	SF 26	Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.95				1.25		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	I_R	5.0				200		μA
Typical reverse recovery time (Note 1)	t_{rr}	35						ns
Typical junction capacitance at 4.0V, 1MHz	C_J	25.0						PF

NOTES:

1. $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

SF21 thru SF26

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

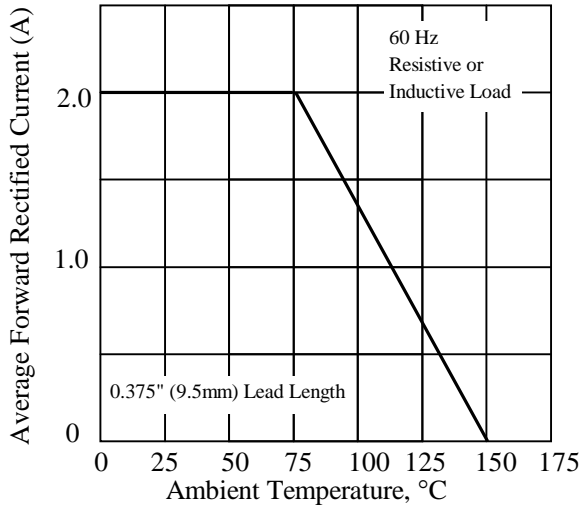


Fig 3. - Typical Instantaneous Forward Characteristics

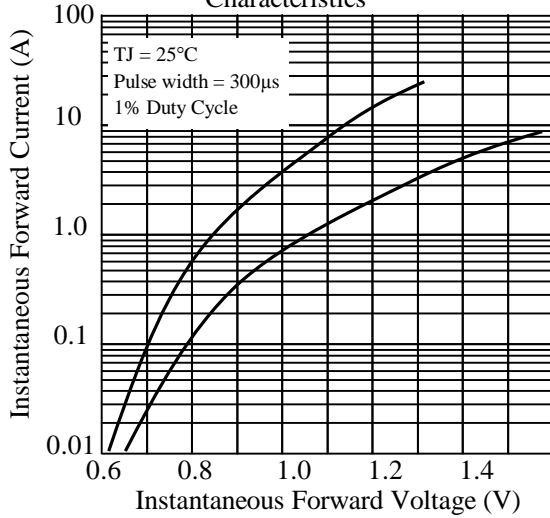


Fig 5. - typical transient thermal impedance

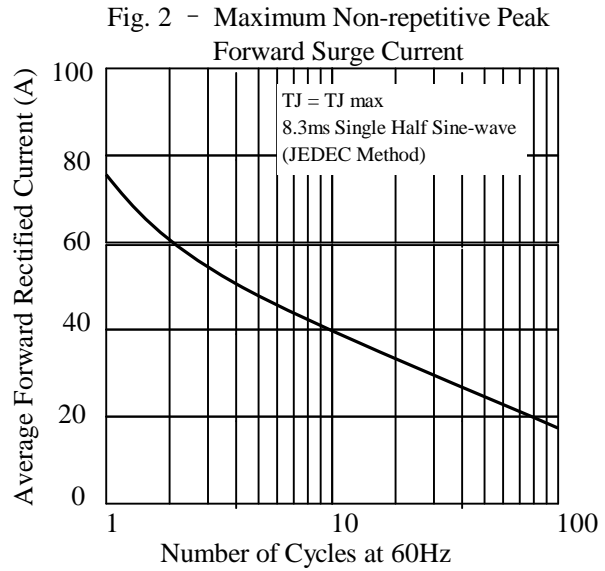


Fig 4. - Typical Reverse Characteristics

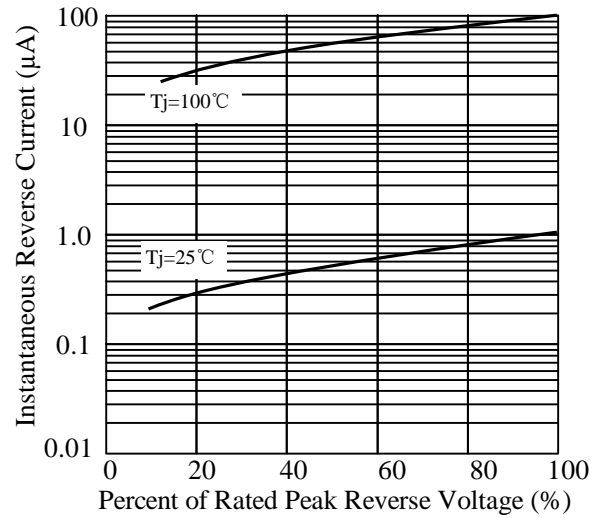
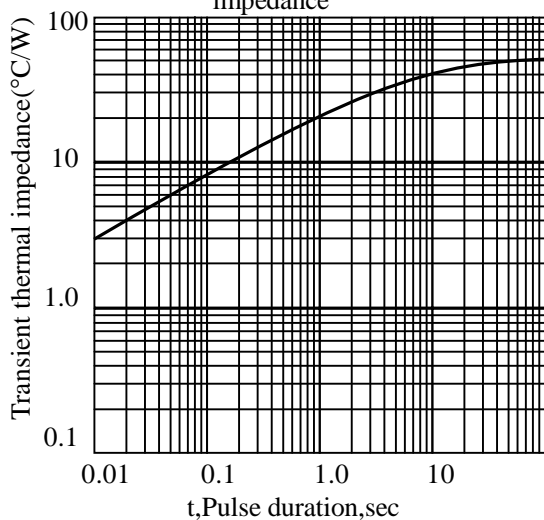
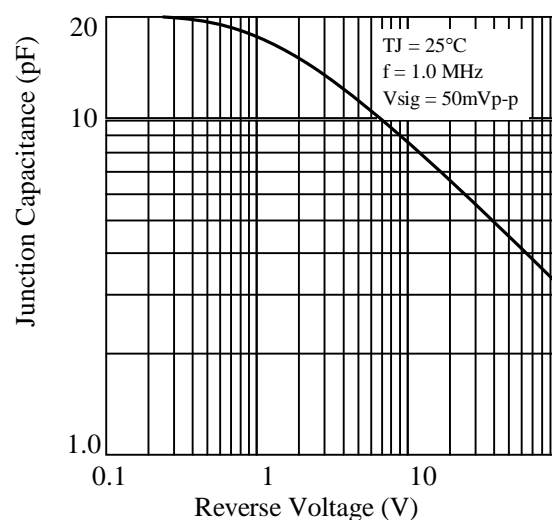


Fig 6. - Typical Junction Capacitance



5.Package Dimensions in inches and (millimeters)
