

III. Fast / Ultra Fast / Super Fast Recovery Rectifier

1.0A Super Fast Recovery Rectifier

SF11~SF19

(Package: DO-41)

<p>FEATURES</p> <ul style="list-style-type: none"> • The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 • Super fast switching for high efficiency • Low reverse leakage • High forward surge current capability • High temperature soldering guaranteed: 250 /10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3 kg) tension <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case : JEDEC DO-41 molded plastic body • Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026 • Polarity : Color band denotes cathode end • Mounting Position : Any • Weight : 0.012 ounce, 0.33 grams 	<p>Case: DO-41 Dimensions in inches and (millimeters)</p>
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Ratings & Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

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

Characteristics	Symbol	SF11	SF12	SF13	SF14	SF15	SF16	SF18	SF19	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_a = 55$	I_o	1.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0								Amps
Maximum instantaneous forward voltage at 1.0 A	V_F	0.95			1.30		1.70			Volts
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$	I_R	5.0 50.0								μA
Maximum reverse recovery time (Note 1)	T_{rr}	35						60		ns
Typical junction capacitance (Note 2)	C_j	15.0				10.0				PF
Typical thermal resistance (Note 3)	R_{th-JA}	60.0								/W
Operating Junction and storage temperature range	T_j, T_{stg}	-65 to +150								

Notes:

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

Ratings and Characteristic Curves of SF11~SF19

