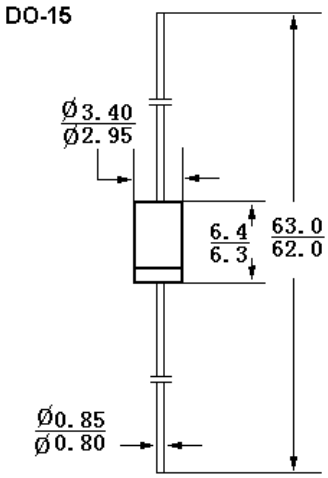
SF21 THRU SF28

SUPER FAST RECTIFIERS
Reverse Voltage – 50 to 600 Volts
Forward Current – 2.0 Amperes

Features

- 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 ibs, (2.3kg) tension



Dimensions in mm

Mechanical Data

- **Case:** JEDEC DO-15 molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

Absolute Maximum Ratings and Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single-phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SF21	SF22	SF23	SF24	SF25	SF26	SF28	Units
Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Average Forward Rectified Current 0.375"(9.5mm) Lead Length at T_A = 55 °C	$I_{(AV)}$	2.0							A
Peak Forward Surge Current , 8.3mS Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Instantaneous Forward Voltage @ 2.0A	V_F	0.95				1.25			V
DC Reverse Current @ T_A = 25 °C at Rated DC Blocking Voltage @ T_A = 100 °C	I_R I_R	5 50							uA
Reverse Recovery Time (Note 1)	T_{rr}	35							nS
Typical Junction Capacitance (Note 2)	C_J	60				30			pF
Typical Thermal Resistance (Note 3)	R_{JA}	50							℃/W
Operating Junction Temperature Range	T_J	-65 to +150							℃
Storage Temperature Range	T_S	-65 to +150							℃

Note: (1) Reverse recovery test conditions: I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A.
(2) Measured at 1 MHz and applied reverse voltage of 4 Volts D.C
(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P. C. B. mounted

SEMTECH ELECTRONICS LTD.
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