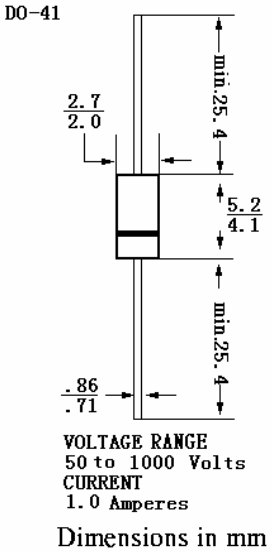
SF101~SF107

SUPER FAST RECOVERY SILICON DIODES
Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.0 Ampere



Dimensions in mm

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Void free moulded plastic technique
- Fast switching for high efficiency
- High forward surge current capability
- High temperature soldering:250℃/10s, 0.375”(9.5mm) lead length, 5lbs(2.3Kg) tension

Mechanical Data

- **Case:** DO-41 plastic moulded
- **Terminals:** Lead –Tin plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Colored band (silver) denotes cathode
- **Mounting position:** Any

Absolute Maximum Ratings and Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

	Symbols	SF101	SF102	SF103	SF104	SF105	SF106	SF107	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375” Lead Length at T_A = 50 ^{O}C	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (MIL-STD-750D 4065 method)	I_{FSM}	30							A
Maximum Forward Voltage at 1.0A	V_F	1.0			1.25	1.4			V
Maximum DC Reverse Current at Ta = 25 ^{O}C at Rated DC Blocking Voltage at Ta = 125 ^{O}C	I_R	5.0 400							uA
Maximum Time of Reverse Recovery (note1)	Trr	35							nS
Typical Junction Capacitance(note2)	Cj	22							pF
Typical Thermal Resistance(note3)	Rja	50							^{O}C/W
Operating Junction Temperature	Tj	-55 to +150							^{O}C
Storage Temperature Range	Ts	-55 to +150							^{O}C

Notes: 1.Rverse recovery test conditions: I_F = 0.5A, I_R = 1.0A, Irr = 0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V
3.Thermal resistance from junction ambient and from junction to lead at 9.5mm lead length, P.C.B mounted.