

SF11~SF18

Superfast Recovery Rectifiers

Reverse Voltage - 50 to 600 V

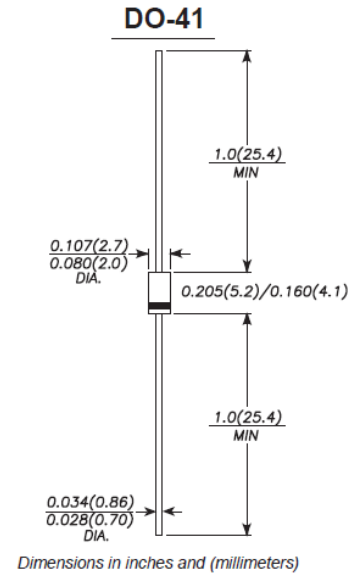
Forward Current - 1 A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge capability
- Low forward voltage, high current capability
- Hermetically sealed
- Super-fast recovery times
- Low leakage

Mechanical Data

- **Case:** DO-41 molded plastic
- **Terminals:** Axial Leads, solderable per MIL-STD-202, method 208 guaranteed
- **Polarity:** Colored band denotes cathode end
- **Mounting position:** Any



Absolute Maximum Ratings and Characteristics

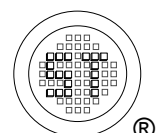
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load, for capacitive load, derate current by 20%.

Parameter	Symbols	SF11	SF12	SF13	SF14	SF15	SF16	SF18	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1 A	V_F	0.95			1.25		1.7		V
Maximum Reverse Current Rated DC Blocking Voltage	I_R	5 500							μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	35					50		ns
Typical Junction Capacitance ²⁾	C_J	50			25			pF	
Typical Thermal Resistance ³⁾	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	- 55 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150							$^\circ\text{C}$

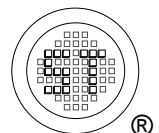
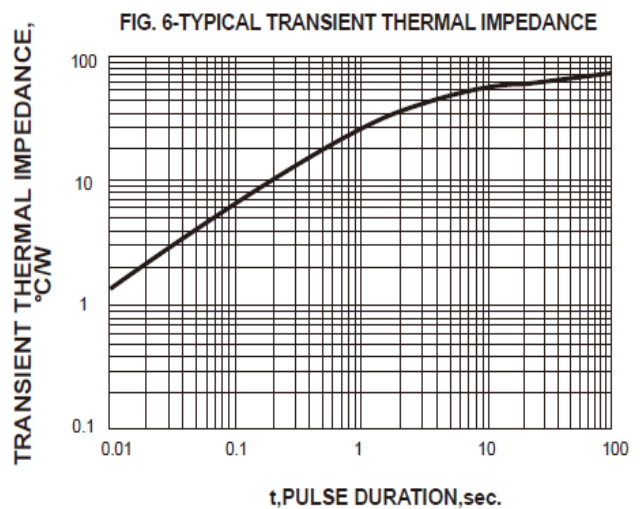
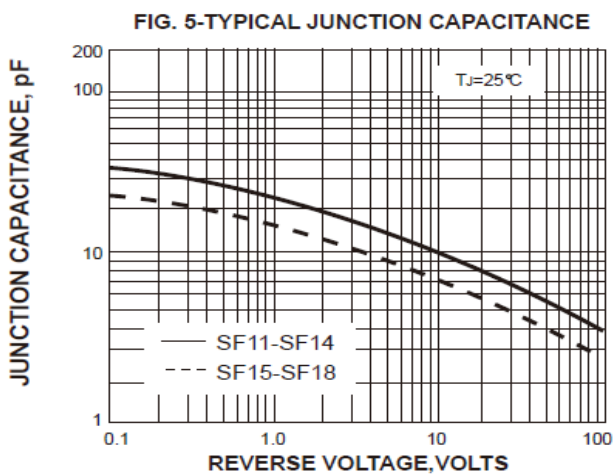
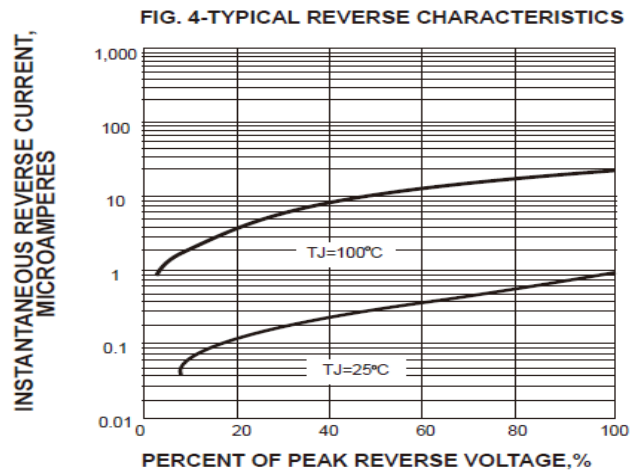
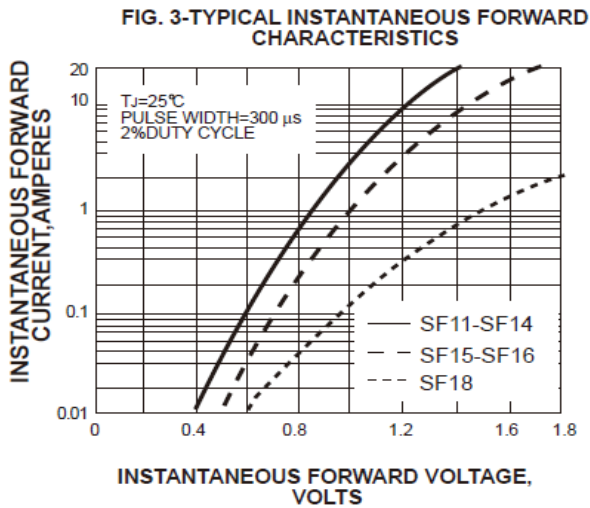
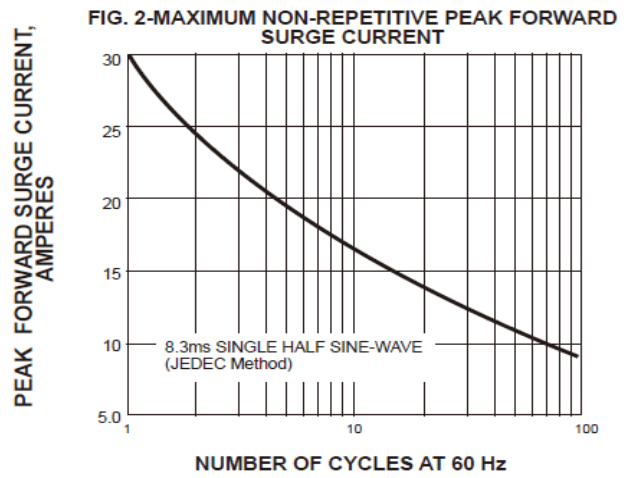
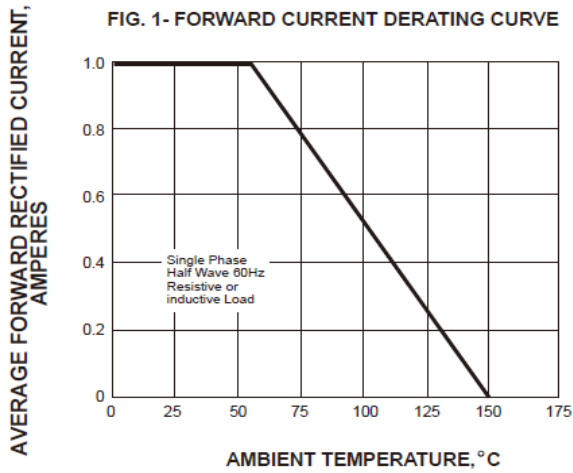
¹⁾ Reverse recovery test conditions: $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $t_{rr} = 0.25 \text{ A}$.

²⁾ Measured at 1.0MHz and applied reverse voltage of 4 V.

³⁾ Thermal resistance from junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted.



Electrical Characteristics Curves



SF11~SF18

Marking information

" SF** " = Part No.

Type	Marking	Type	Marking
SF11	SF11	SF12	SF12
SF13	SF13	SF14	SF14
SF15	SF15	SF16	SF16
SF18	SF18		

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