

SF11~SF18

SUPERFAST RECOVERY RECTIFIERS

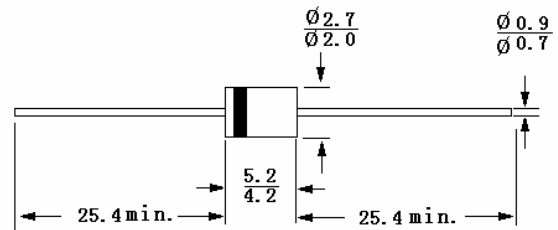
Reverse Voltage – 50 to 600 Volts

Forward Current – 1.0 Ampere

DO-41

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



Dimensions in mm

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

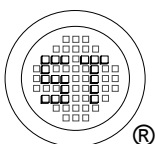
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%.

	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" (9.5mm) Lead Length at T _A = 55°C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30							A
Maximum Forward Voltage at 1.0A	V _F	0.95				1.25		1.7	V
Maximum Reverse Current Ta = 25°C at Rated DC Blocking Voltage Ta = 100°C	I _R	5.0 500							uA
Maximum Reverse Recovery Time (note1)	T _{RR}	35						50	nS
Typical Junction Capacitance(note2)	C _J	50				25			pF
Typical Thermal Resistance(note3)	R _{θJA}	50							°C/W
Operating Junction Temperature	T _J	-55 to +150							°C
Storage Temperature Range	Ts	-55 to +150							°C

Notes: 1.Reverse recovery test conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

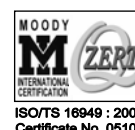
2.Measured at 1.0MHz and applied reverse voltage of 4.0V

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



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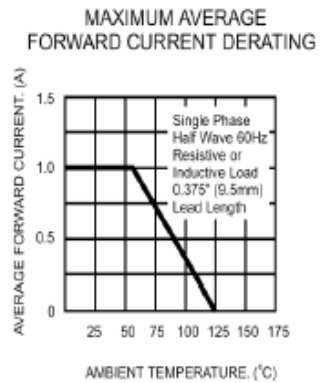
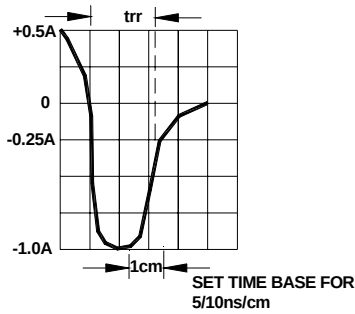
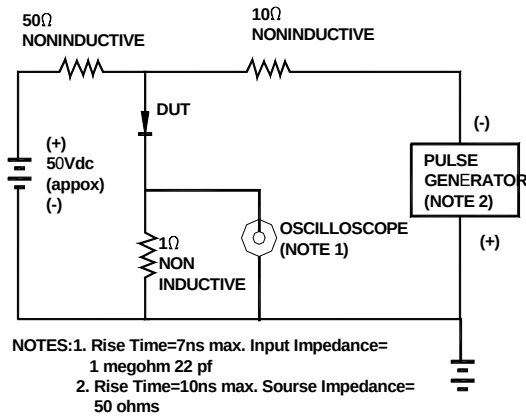
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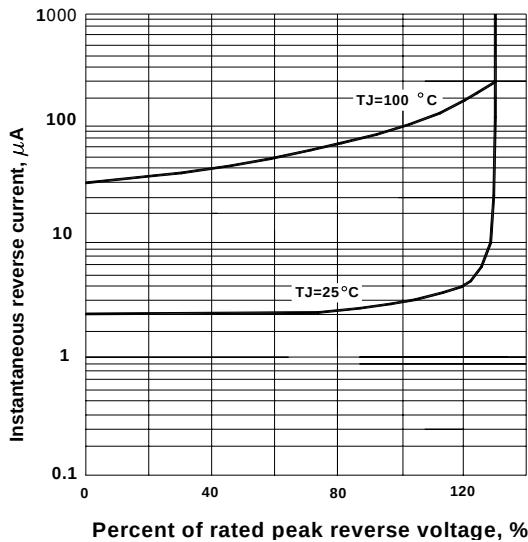
Dated : 13/05/2005 H

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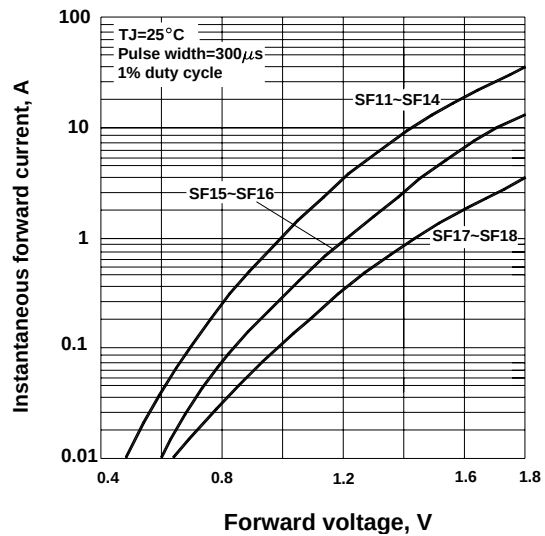
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



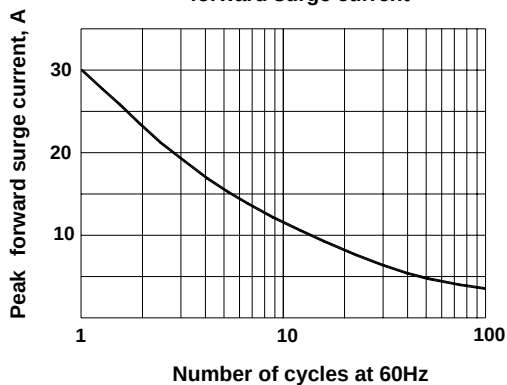
Typical reverse characteristics



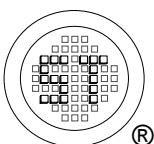
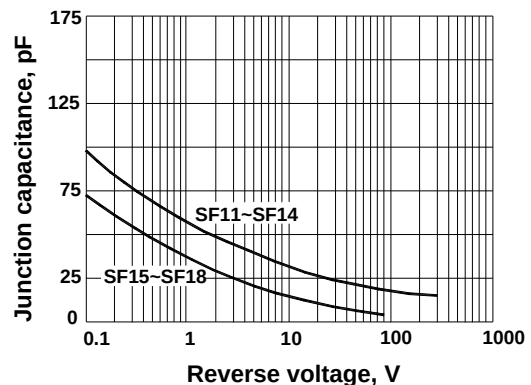
Typical forward characteristics



Maximum non-repetitive forward surge current

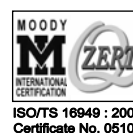


Typical junction capacitance



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