

# SF11 thru SF18

## SUPER FAST RECTIFIERS

REVERSE VOLTAGE - **50 to 600** Volts  
 FORWARD CURRENT - **1.0** Ampere

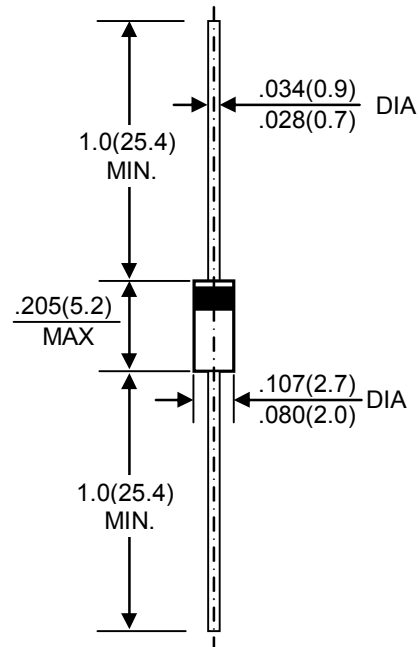
### FEATURES

- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

### MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces , 0.34 grams
- Mounting position: Any

### DO-41



## MAXIMUM RATINGS AND ELECTRICAL 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%

CHARACTERISTICS	SYMBOL	SF11	SF12	SF13	SF14	SF15	SF16	SF18	UNIT	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	600	V	
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	420	V	
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	600	V	
Maximum Average Forward Rectified Current @TA =55 °C	I(AV)	1.0							A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	IFSM	30							A	
Peak Forward Voltage at 1.0A DC	VF	0.95			1.25		1.3		V	
Maximum DC Reverse Current @TJ=25°C at Rated DC Blocking Voltage @TJ=100°C	IR	5.0				100				µA
Maximum Reverse Recovery Time(Note 1)	Trr	35			40		50		nS	
Typical Junction Capacitance (Note2)	CJ	30			25				pF	
Typical Thermal Resistance (Note3)	RθJA	40							°C/W	
Operating Temperature Range	TJ	-55 to +125							°C	
Storage Temperature Range	TSTG	-55 to +150							°C	

NOTES:1.Measured with IF=0.5A,IR=1A,IRR=0.25A.

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

3.Thermal resistance junction to ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

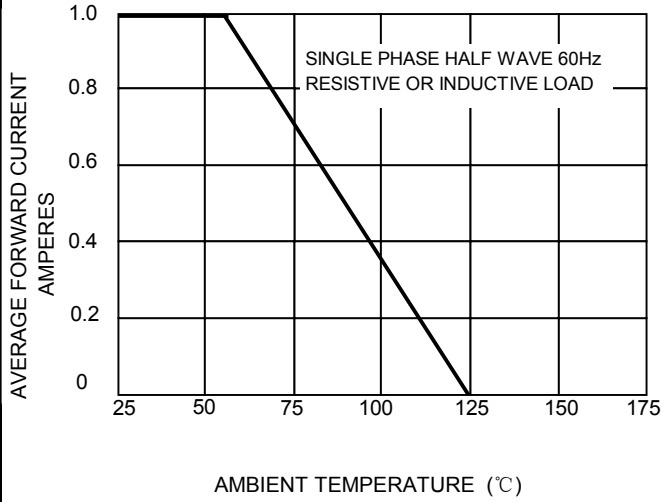


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

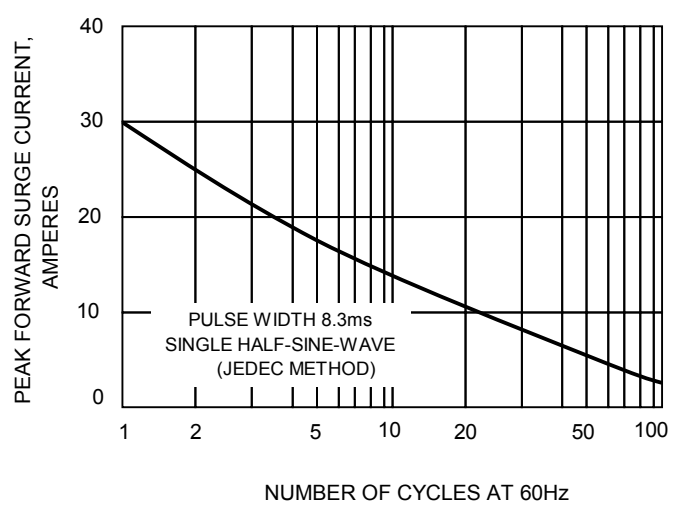


FIG.3 – TYPICAL JUNCTION CAPACITANCE

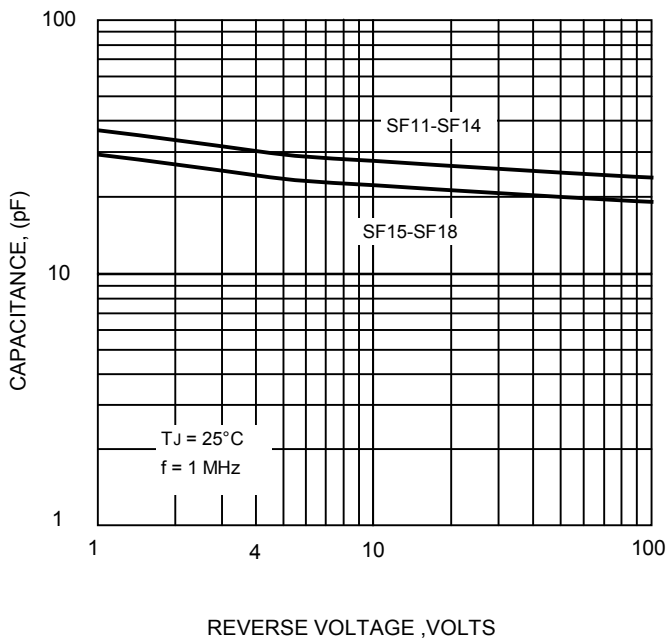
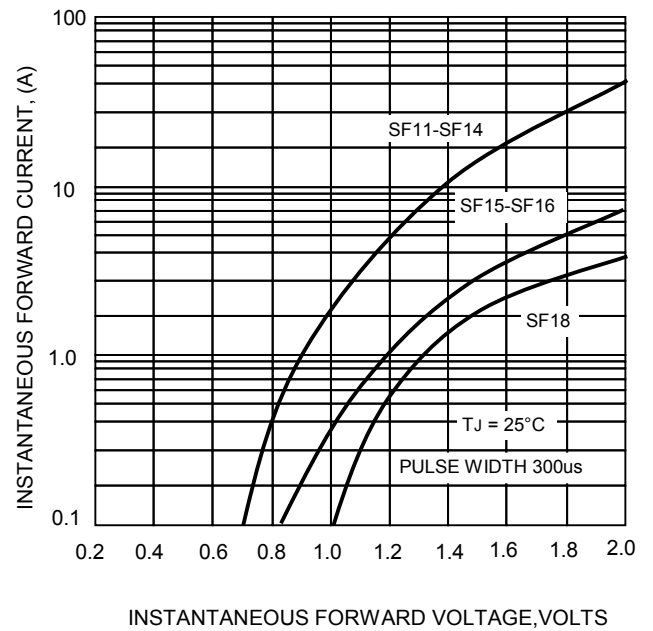


FIG.4-TYPICAL FORWARD CHARACTERISTICS



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