

## SUPER FAST RECTIFIERS

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

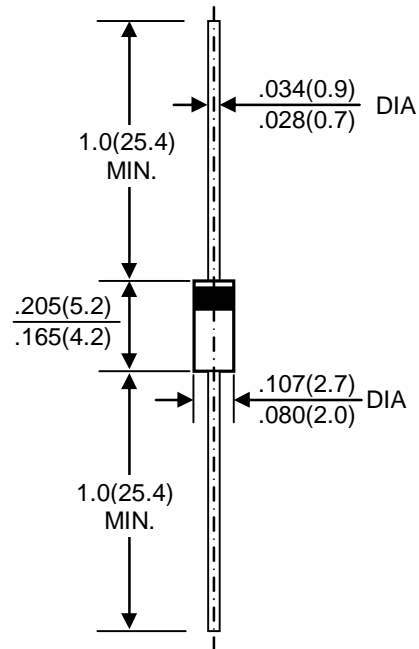
### FEATURES

- 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



Dimensions in inches and (millimeters)

### 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			1.3		1.7		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								nS
Typical Junction Capacitance (Note2)	CJ	30			25					pF
Typical Thermal Resistance (Note3)	RθJA	40							°C/W	
Operating Temperature Range	TJ	-55 to +150							°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.

REV. 2, 03-Aug-2012

FIG. 1 – FORWARD CURRENT DERATING CURVE

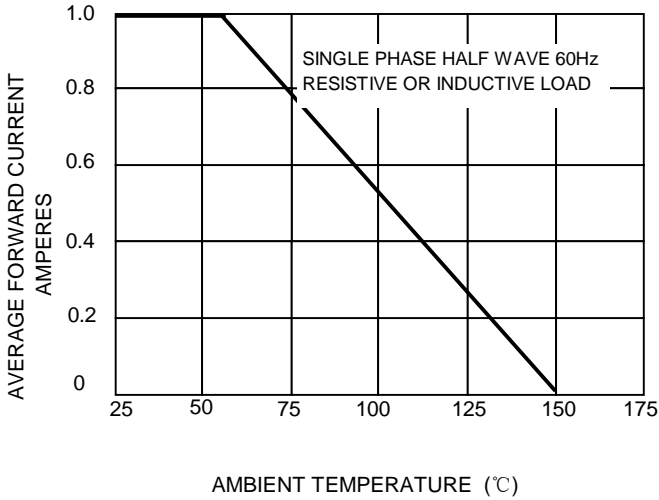


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

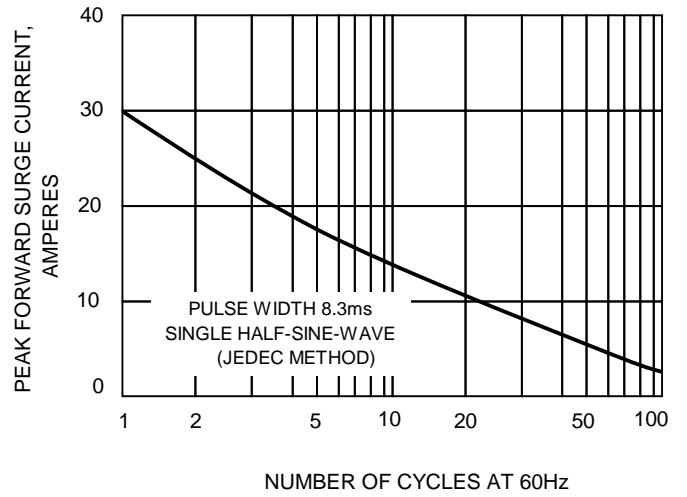


FIG.3 – TYPICAL JUNCTION CAPACITANCE

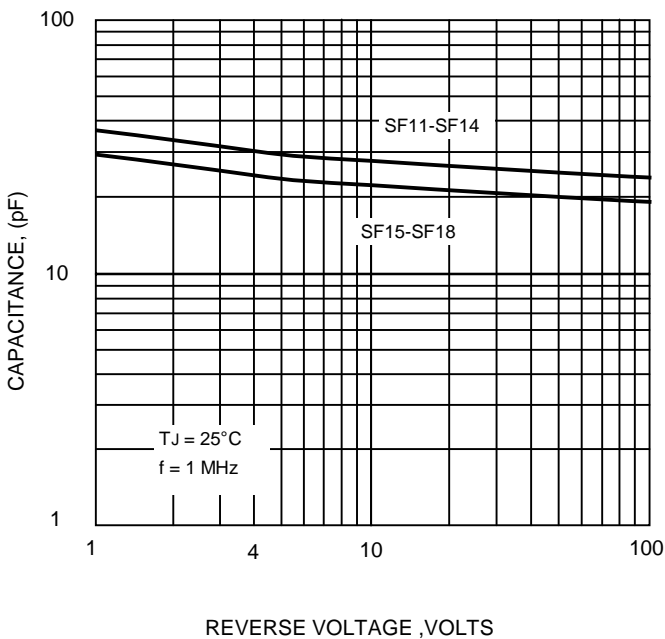


FIG.4-TYPICAL FORWARD CHARACTERISTICS

