

**SF11 THRU SF17** 

### GLASS PASSIVATED SUPER FAST RECTIFIER

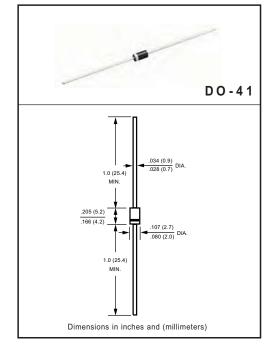
### VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

### **FEATURES**

- \* High reliability
- \* Low leakage
- \* Low forward voltage
- \* High current capability
- \* Super fast switching speed
- \* High surge capability
- \* Good for switching mode circuit

### **MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.33 g ram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. resistive or inductive load.

#### MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

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RATINGS	SYMBOL	SF11	SF12	SF13	SF14	SF15	SF16	SF17	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> = 55°C	Rectified Current Io 1.0					Amps			
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30					Amps		
Current Squarad Time						A <sup>2</sup> /Sec			
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	50							°C/W
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	20							
Typical Junction Capacitance (Note 2)	СЈ	15 10					pF		
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150					°C		

### ELECTRICAL CHARACTERISTICS(@T<sub>A</sub>=25 °C unless otherwise noted)

CHARACTERIS	SYMBOL	SF11	SF12	SF13	SF14	SF15	SF16	SF17	UNITS	
Maximum Instantaneous Forward V	oltage at 1.0A DC	V <sub>F</sub>		0	.95		1.	1.30 1.70		Volts
Maximum DC Reverse Current	@T <sub>A</sub> = 25°C	lo.	5.0							
at Rated DC Blocking Voltage @T <sub>A</sub> = 100°C		- IR	100							uAmps
Maximum Reverse Recovery Time	trr	35					nSec			

NOTES :

1. Test Conditions: I<sub>F</sub> = 0.5A, I<sub>R</sub> = -1.0A, I<sub>RR</sub> = -0.25A

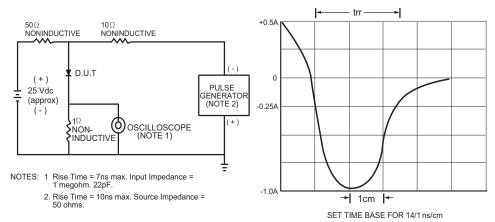
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. Typical Thermal Resistance: At 9.5mm lead lengths,PCB mounted.

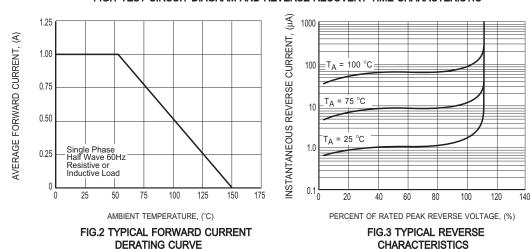
4. "Fully ROHS complaint", "100% Sn plating (Pb-free)"

2016-06 REV:C

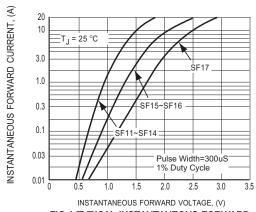
# RATING AND CHARACTERISTICS CURVES (SF11 THRU SF17)



### FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



# RATING AND CHARACTERISTICS CURVES (SF11 THRU SF17)



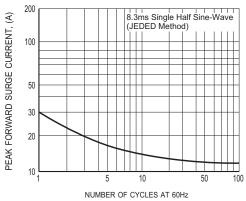


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

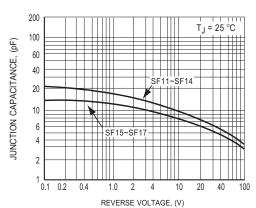
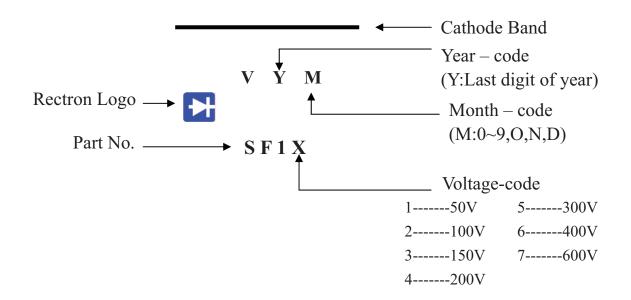


FIG.6 TYPICAL JUNCTION CAPACITANCE



# **Marking Description**





# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-B	1,000	194*75*21	415*220*255	50,000	16.2

## REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-T	5,000	5,000	5.0	52	330	355*350*335	20,000	10.49

## AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-41	-F	3,000	5.0	52	255*73*100	400*268*225	30,000	13.0
DO-41	-E	3,000	5.0	26	256*48*94	365*270*217	42,000	12.41



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