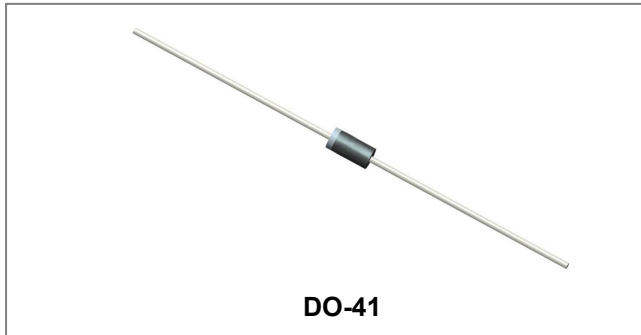


## SF11G-SF18G SUPER FAST RECTIFIER



### Features

- Super fast switching for high efficiency
- Low leakage current
- High forward surge capability
- Solder dip 260 ° C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: JEDEC DO-41 molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight:0.012 ounce, 0.34 grams

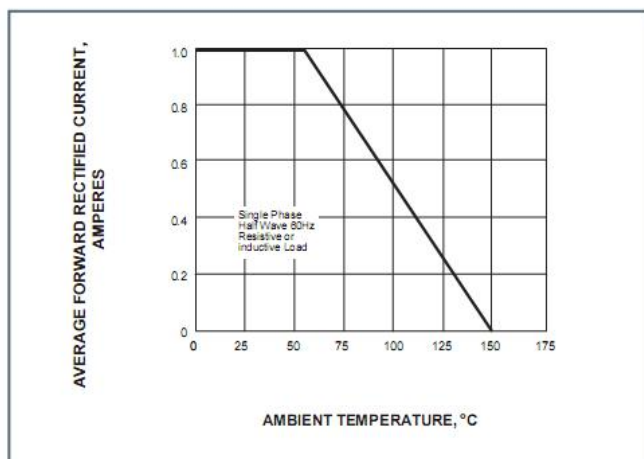
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	SF11G	SF12G	SF13G	SF14G	SF15G	SF16G	SF18G	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum average forward rectified current 0.375"(9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.95			1.25		1.7	V	
Maximum DC reverse current T <sub>A</sub> =25 °C at rated DC blocking voltage T <sub>A</sub> =100 °C	I <sub>R</sub>	5.0			50.0				µA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	35							ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	15.0			10.0				pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	60.0							°C/W
Junction Temperature	T <sub>J</sub>	-65 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150							°C

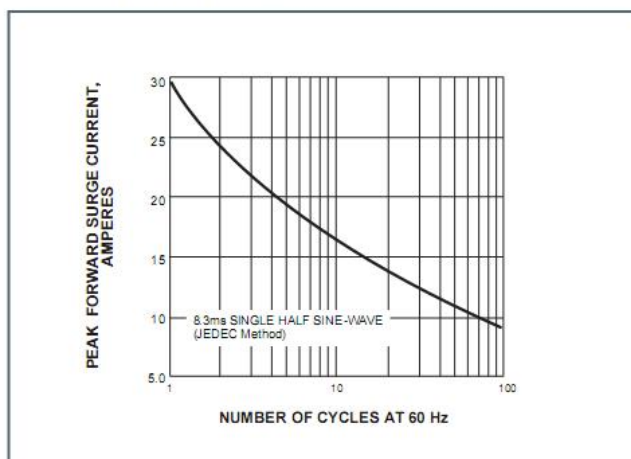
Note: 1. Reverse recovery condition IF=0.5A, IR=1.0A. Irr=0.25A  
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B mounted.

**Ratings and Characteristics Curves**

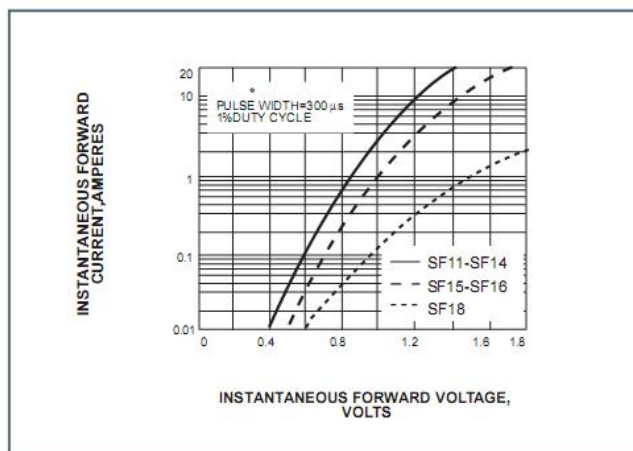
**FIG. 1- FORWARD CURRENT DERATING CURVE**



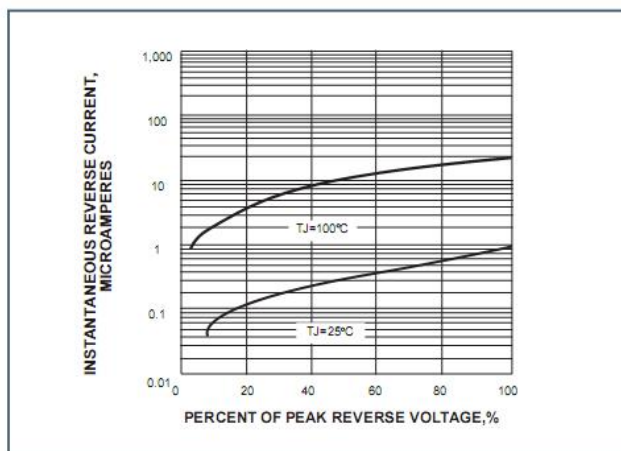
**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



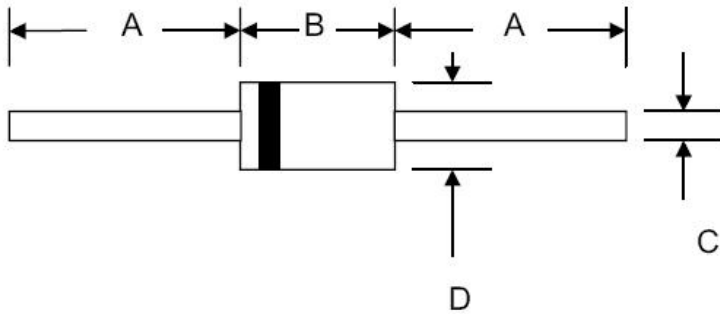
**FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4-TYPICAL REVERSE CHARACTERISTICS**



**Mechanical Dimensions DO-41**




SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.06	5.21	0.160	0.205
C	0.70	0.90	0.028	0.034
D	2.00	2.72	0.079	0.107

**Ordering Information**

Device	Package	Shipping
SF11G THRU SF18G	DO-41 (Pb-Free)	5000pcs /Tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**

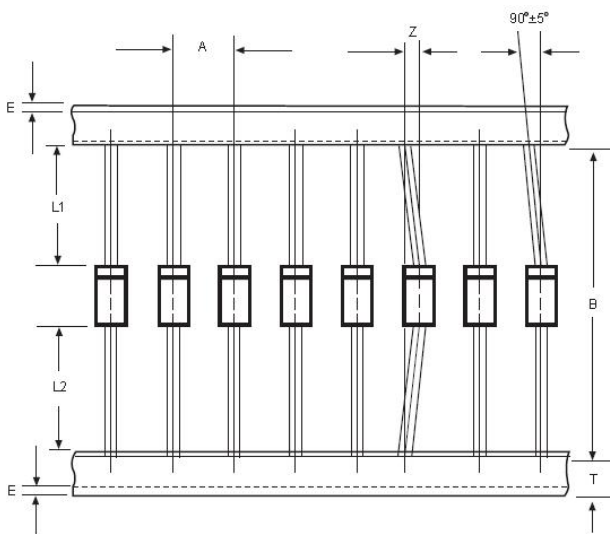


Where XXXXX is YYWWL

SF11G = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Carrier Tape Specification DO-41**



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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