

## FEATURES

- | Low reverse leakage
- | High forward surge capability
- | High reliability
- | Meet AEC-Q101 Requirements



DO-15

## MECHANICAL DATA

- | Case: Molded plastic, DO-15
- | Polarity: Color band denotes cathode end
- | Mounting position: Any

## APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

## MAXIMUM RATINGS AND CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter		Symbol	SF21Q	SF22Q	SF23Q	SF24Q	SF25Q	SF26Q	SF28Q	Unit
Marking			SF21	SF22	SF23	SF24	SF25	SF26	SF28	
Maximum Recurrent 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	
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	150	200	300	400	600	
Maximum Average Forward Rectified Current		I <sub>F(AV)</sub>	2.0							A
Non-repetitive peak forward surge current 8.3 ms singlehalf sine-wave		I <sub>FSM</sub>	50							
Maximum Forward Voltage at 2.0A DC		V <sub>F</sub>	0.95				1.25		1.70	V
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	5							μA
	T <sub>A</sub> =125°C		100							
Reverse Recovery time I <sub>F</sub> =0.5A,I <sub>R</sub> =1.0A,I <sub>RR</sub> =0.25A		T <sub>RR</sub>	35							nS
Type junction capacitance V <sub>R</sub> =4.0V,f=1MHz		C <sub>J</sub>	30							pF
Typical thermal resistance (Note 1)		R <sub>θJA</sub>	60							°C/W
Operating Junction And Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55~+150							°C

Note:

1. Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted

# CHARACTERISTIC CURVES

Fig.1 - Typical Forward Characteristic

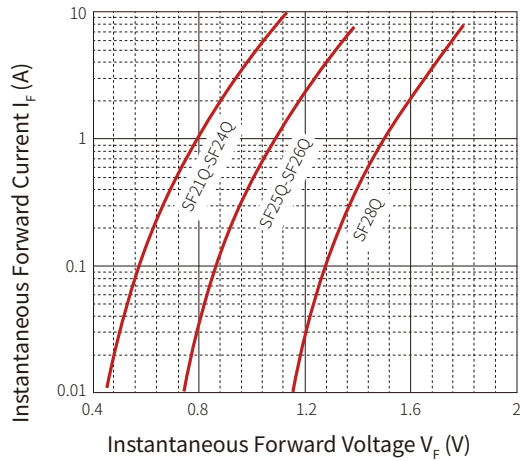


Fig.2 - Forward Current Derating Curve

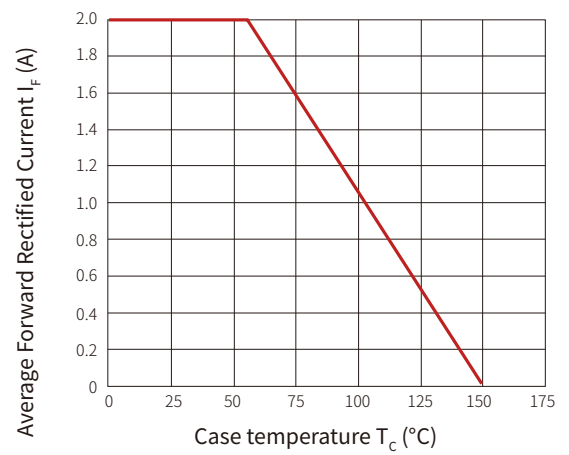


Fig.3 - Maximum Non Repetitive Peak Forward Surge Current

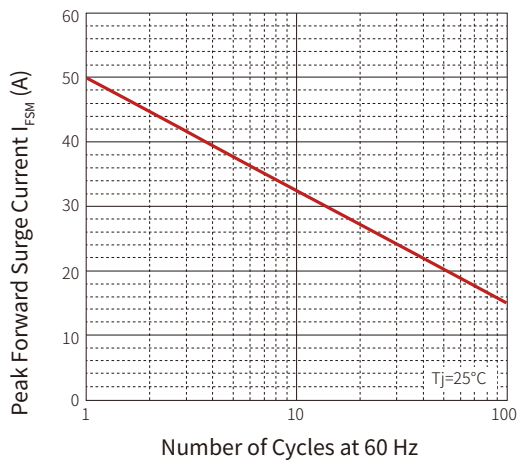
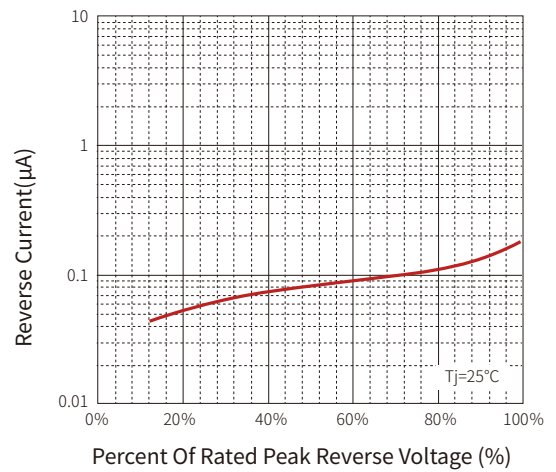
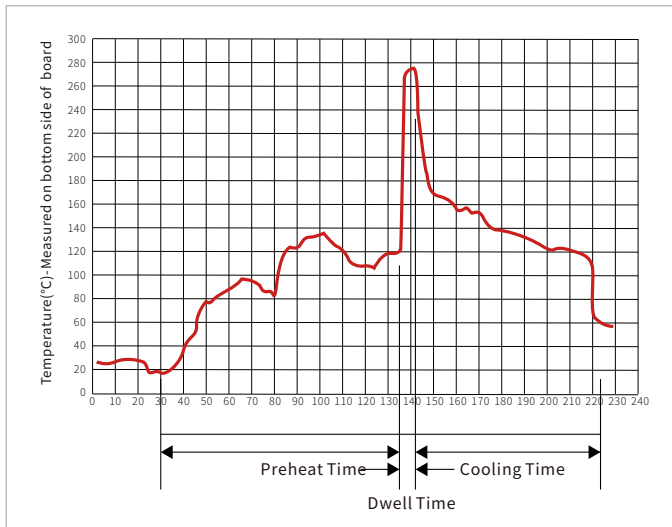


Fig.4 - Typical Reverse Characteristics

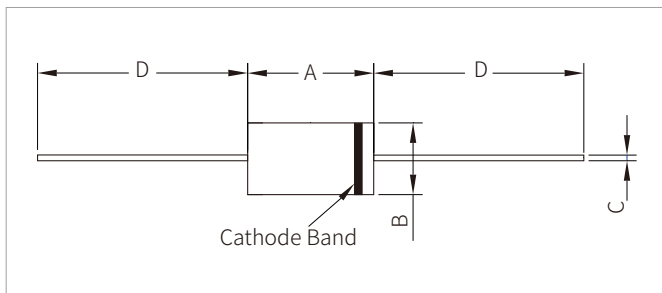


## WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

## DO-15 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.80	7.60	0.230	0.300
B	2.60	3.60	0.104	0.140
C	0.70	0.90	0.026	0.034
D	25.40	-	1.000	-

## ORDERING INFORMATION

Part Number	Component Package	Per Carton	Description
SF21Q-SF28Q	DO-15	3000pcs	Box

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