SAMYANG ELECTRONICS

SF21G --- SF28G

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 2.0A

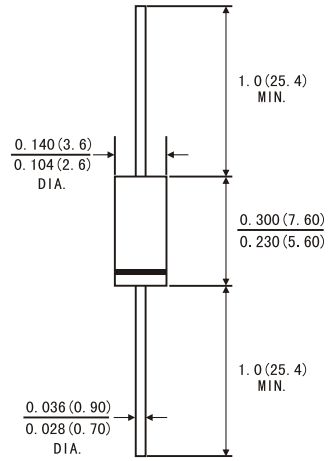
FEATURES

- ◇Metal-semiconductor junction with guard ring
- ◇Epitaxial construction
- ◇Low forward voltage drop,low switching losses
- ◇High surge capability
- ◇For use in low voltage,high frequency inverters free wheeling,and polarity protection applications
- ◇The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇Case:JEDEC DO-15,molded plastic
- ◇Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇Polarity: Color band denotes cathode end
- ◇Weight: 0.014 ounces, 0.39 grams
- ◇Mounting position: Any

DO-15



Dimensions in inches and (millimeters)

■ Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	SF							
				21G	22G	23G	24G	25G	26G	27G	28G
Repetitive Peak Reverse Voltage	VRRM	V		50	100	150	200	300	400	500	600
Average Forward Current	$I_{F(AV)}$	A	60HZ Half-sine wave, Resistance load,Ta=50℃	2.0							
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60HZ Half-sine wave,1 cycle,Ta=25℃	50							
Junction Temperature	T_j	℃		-55~+150							
Storage Temperature	T_{stg}	℃		-55 ~ +150							

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SF							
					21G	22G	23G	24G	25G	26G	27G	28G
Peak Forward Voltage	V_{FM}	V	I_{FM}=2.0A		0.95				1.3		1.7	
Peak Reverse Current	I_{RRM1}	μA	VRM=VRRM	Ta=25℃	5							
	I_{RRM2}			Ta=125℃	50							
Reverse Recovery time	trr	ns	I_F=0.5A I_R=1A I_{RR}=0.25A		35							
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		55							
	$R_{\theta J-L}$		Between junction and lead		20							

FIG.1: FORWARD CURRENT DERATING CURVE

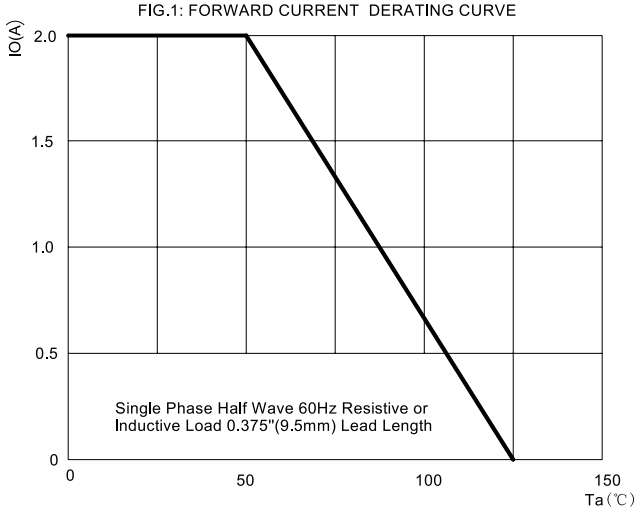


FIG.2 : MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

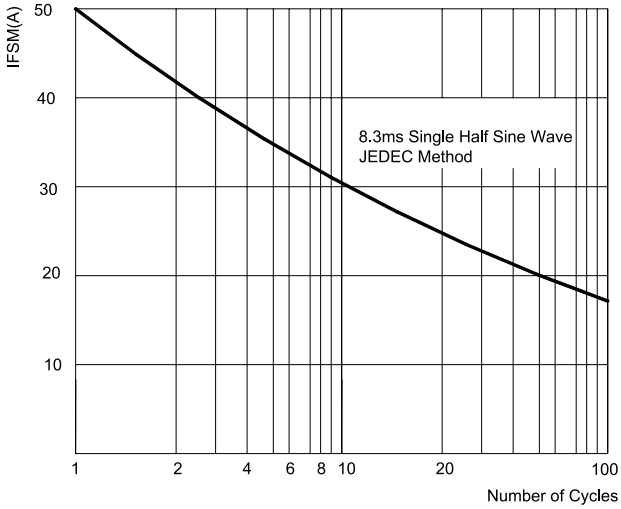


FIG.3: TYPICAL FORWARD CHARACTERISTICS

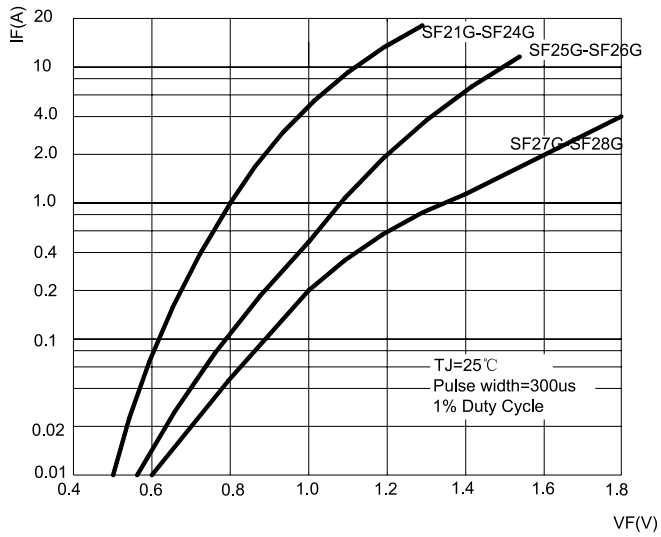


FIG.4:TYPICAL REVERSE CHARACTERISTICS

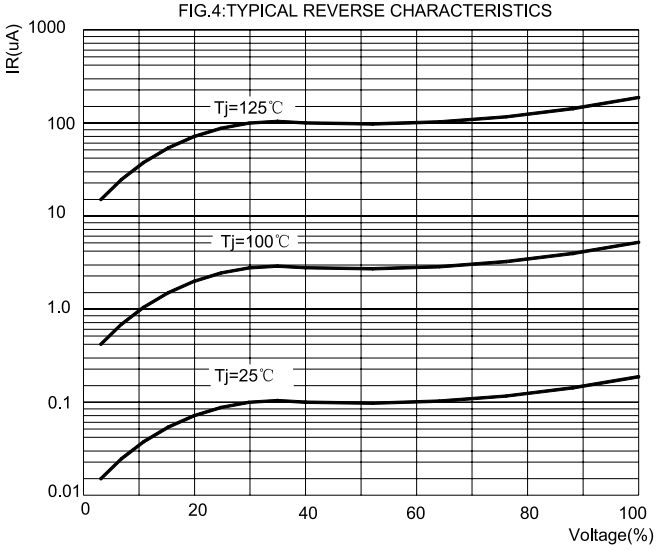


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

