SF51G THRU SF58G

RoHS COMPLIANT

超快恢复二极管 Super Fast Rectifier

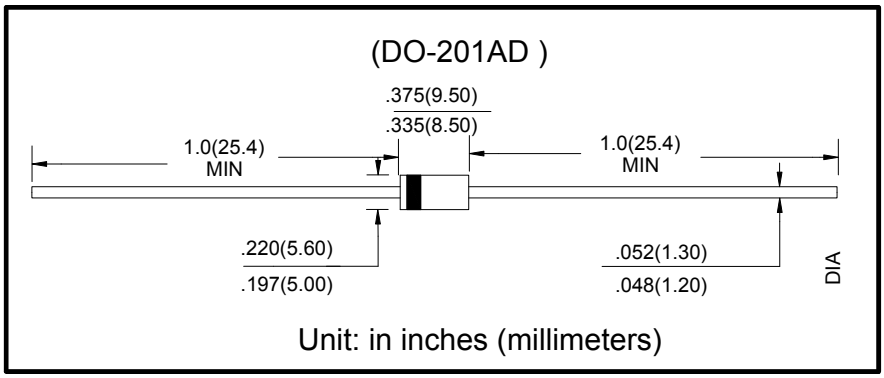
■特征 Features

- I_o 5.0A
- VRRM 50V-600V
- 耐正向浪涌电流能力高
- High surge current capability

■用途 Applications

- 整流用 Rectifier

■外形尺寸和印记 Outline Dimensions and Mark



■极限值（绝对最大额定值）
Limiting Values (Absolute Maximum Rating)

参数名称 Item	符号 Symbol	单位 Unit	条件 Conditions	SF5							
				1G	2G	3G	4G	5G	6G	7G	8G
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	150	200	300	400	500	600
正向平均电流 Average Forward Current	$I_{F(AV)}$	A	正弦半波 60Hz,电阻负载,Ta(FIG 1) 60Hz Half-sine wave, Resistance load, Ta(FIG 1)	5.0							
正向（不重复）浪涌电流 Surge(Non-repetitive)Forward Current	I_{FSM}	A	正弦半波 60Hz，一个周期，Ta=25℃ 60Hz Half-sine wave,1 cycle, Ta=25℃	150							
结温 Junction Temperature	T_J	℃		-55~+150							
储存温度 Storage Temperature	T_{STG}	℃		-55 ~ +150							

■电特性 （Ta=25℃ 除非另有规定）
Electrical Characteristics (Ta=25℃ Unless otherwise specified)

参数名称 Item	符号 Symbol	单位 Unit	测试条件 Test Condition		SF5							
					1G	2G	3G	4G	5G	6G	7G	8G
正向峰值电压 Peak Forward Voltage	V_{FM}	V	I_{FM}=5.0A		0.95				1.3		1.7	
反向峰值电流 Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	Ta=25℃	5							
	I_{RRM2}			Ta=125℃	150							
反向恢复时间 Reverse Recovery time	t_{rr}	ns	I_F=0.5A I_R=1A I_{RR}=0.25A		35							
热阻(典型) Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	结和环境之间 Between junction and ambient		15							
结电容 Typical junction capacitance	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.		100				80			

■特性曲线（典型） Characteristics(Typical)

FIG.1 正向电流降额曲线
FORWARD CURRENT DERATING CURVE

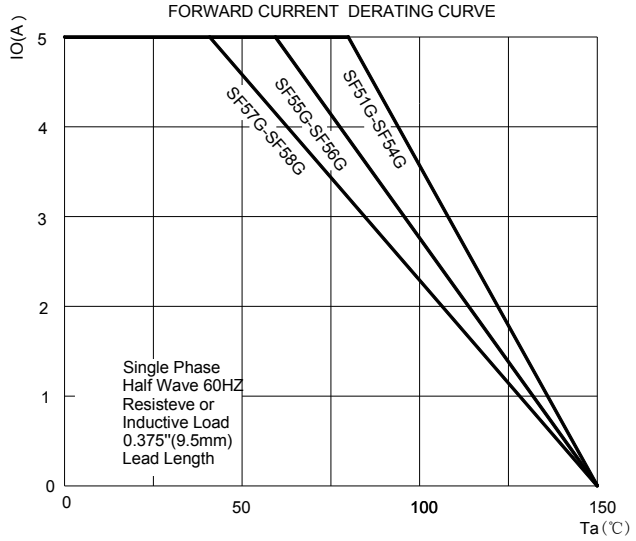


FIG.2 最大正向浪涌冲击耐受力
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

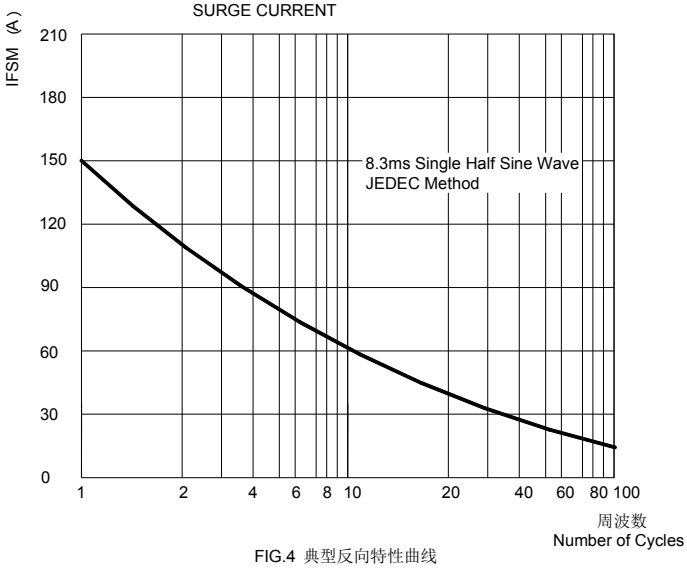


FIG.3 典型正向特性曲线
TYPICAL FORWARD CHARACTERISTICS

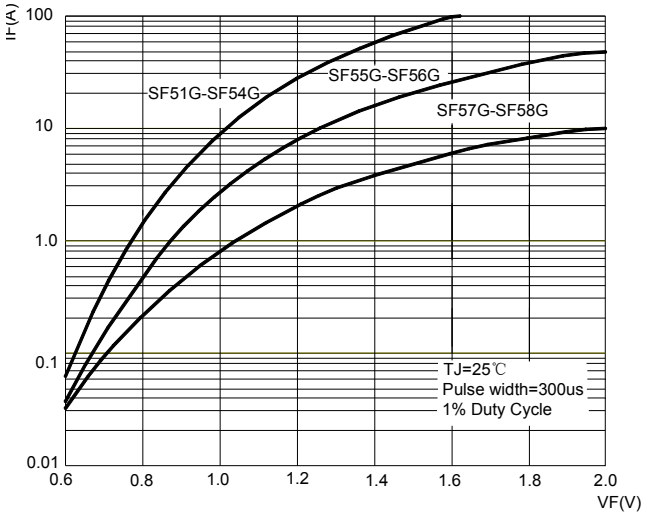


FIG.4 典型反向特性曲线
TYPICAL REVERSE CHARACTERISTICS

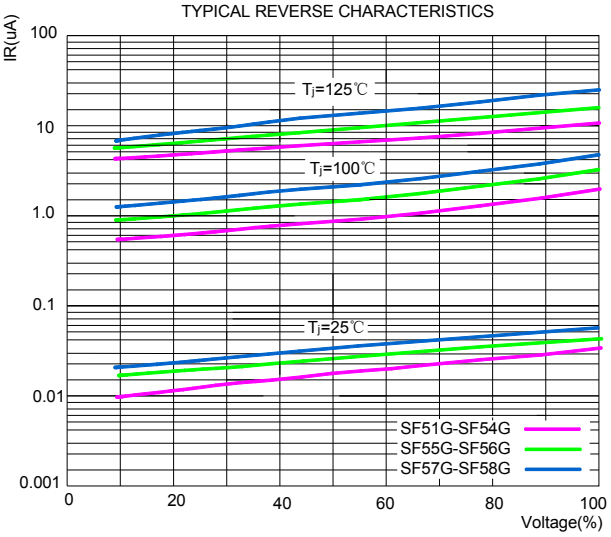


FIG.5 反向恢复时间试验电路及测试波形示意图
Diagram of circuit and Testing wave form of reverse recovery time

