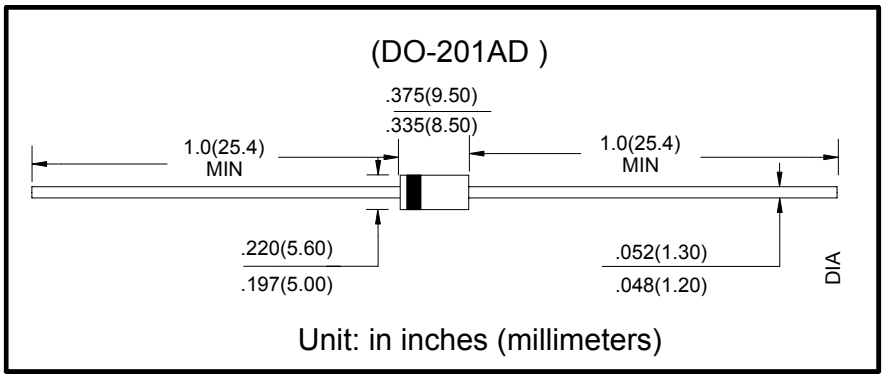
FR301 THRU FR307

快恢复二极管 Fast Recovery Rectifier

■特征 Features

- I_o 3.0A
- VRRM 50V-1000V
- 耐正向浪涌电流能力高
- High surge current capability

■外形尺寸和印记 Outline Dimensions and Mark



■用途 Applications

- 整流用 Rectifier

■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	FR						
				301	302	303	304	305	306	307
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
正向平均电流 Average Forward Current	$I_{F(AV)}$	A	正弦半波 60Hz,电阻负载,Ta=50℃ 60Hz Half-sine wave, Resistance load, Ta=50℃	3						
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~+125						
储存温度 Storage Temperature	T_{STG}	℃		-55 ~ +150						

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

参数名称 Item	符号 Symbol	单位 Unit	测试条件 Test Condition		FR						
					301	302	303	304	305	306	307
正向峰值电压 Peak Forward Voltage	V_{FM}	V	I_{FM}=3.0A		1.3						
反向峰值电流 Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$	Ta=25℃	5						
	I_{RRM2}			Ta=125℃	50						
反向恢复时间 Reverse Recovery time	t_{rr}	ns	I_F=0.5A I_R=1A I_{RR}=0.25A		150				250	500	
热阻(典型) Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	结和环境之间 Between junction and ambient		20						
	$R_{\theta J-L}$		结和引线之间 Between junction and lead		10						

■特性曲线（典型） Characteristics(Typical)

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

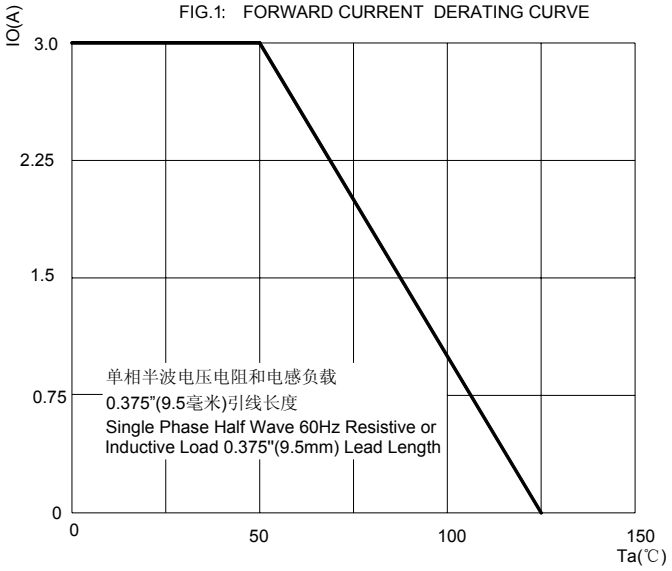


图2: 最大正向浪涌冲击耐受力
FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

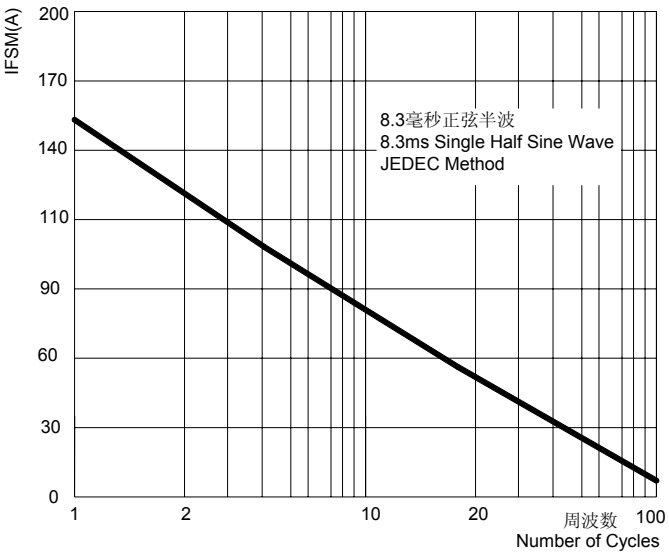


图3：典型正向特性曲线
FIG.3：TYPICAL FORWARD CHARACTERISTICS

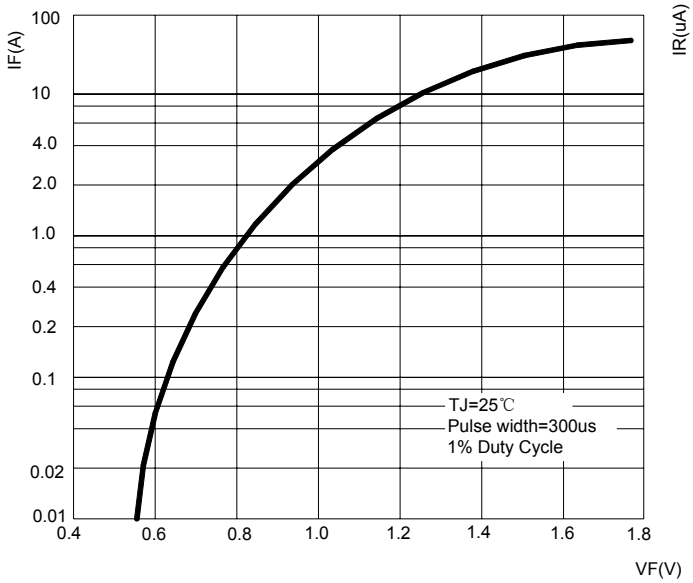


图4: 典型反向特性曲线
FIG.4:TYPICAL REVERSE CHARACTERISTICS

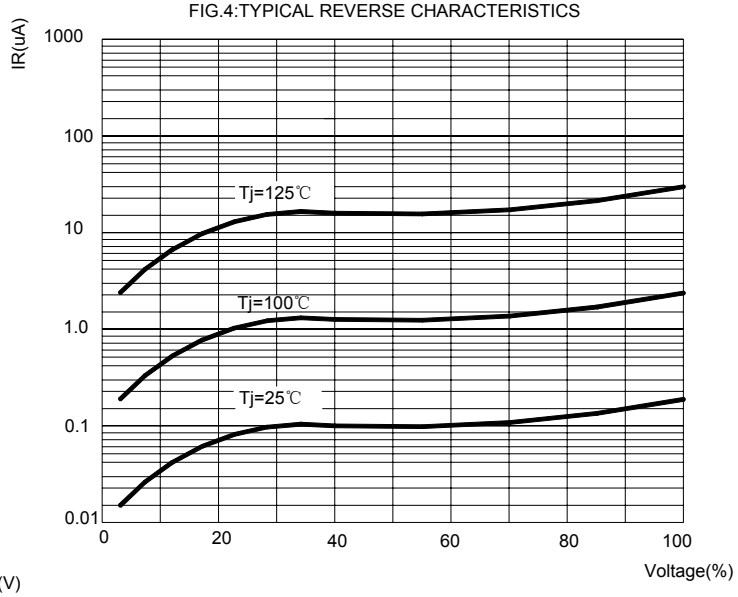


图5: 反向恢复时间试验电路及测试波形示意图
FIG.5: Diagram of circuit and Testing wave form of reverse recovery time