



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

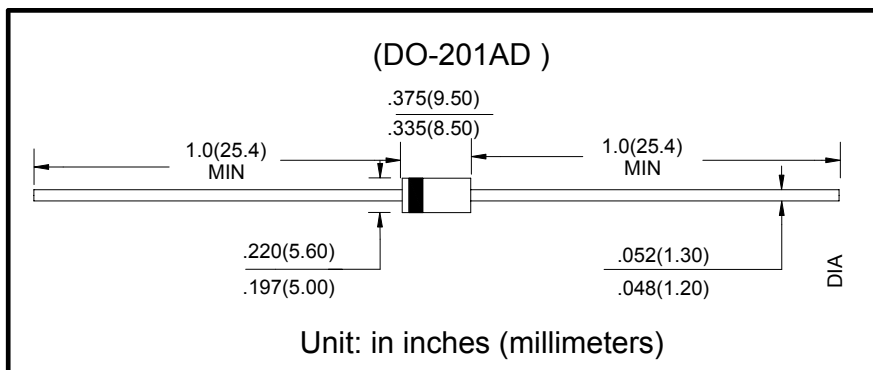
■用途 Applications

- 整流用 Rectifier

■极限值（绝对最大额定值）

Limiting Values (Absolute Maximum Rating)

■外形尺寸和印记 Outline Dimensions and Mark



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, $T_a=50^{\circ}C$ 60Hz Half-sine wave, Resistance load, $T_a=50^{\circ}C$	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, $T_a=25^{\circ}C$ 60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$	150						
结温 Junction Temperature	T_J	$^{\circ}C$		-55~+125						
储存温度 Storage Temperature	T_{STG}	$^{\circ}C$		-55 ~ +150						

■电特性（ $T_a=25^{\circ}C$ 除非另有规定）

Electrical Characteristics ($T_a=25^{\circ}C$ 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}	T _a =25℃	5						
	T _a =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 _{θJ-A}	℃/W	结和环境之间 Between junction and ambient		20						
	R _{θJ-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

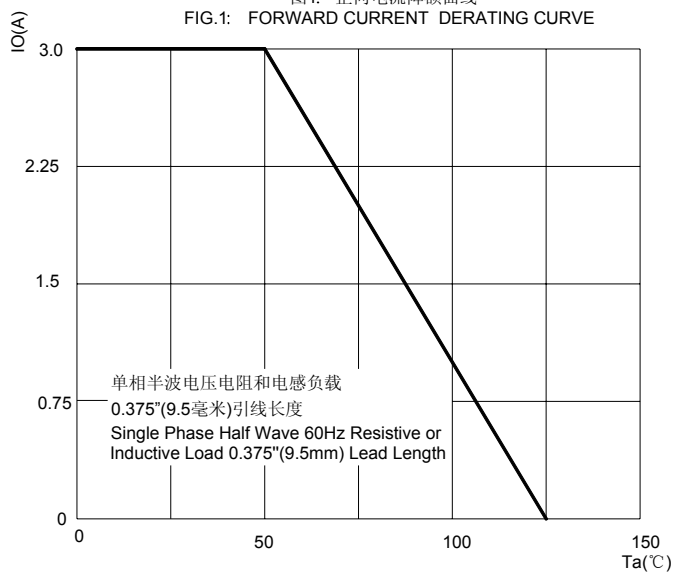


图2: 最大正向浪涌冲击耐受能力

FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

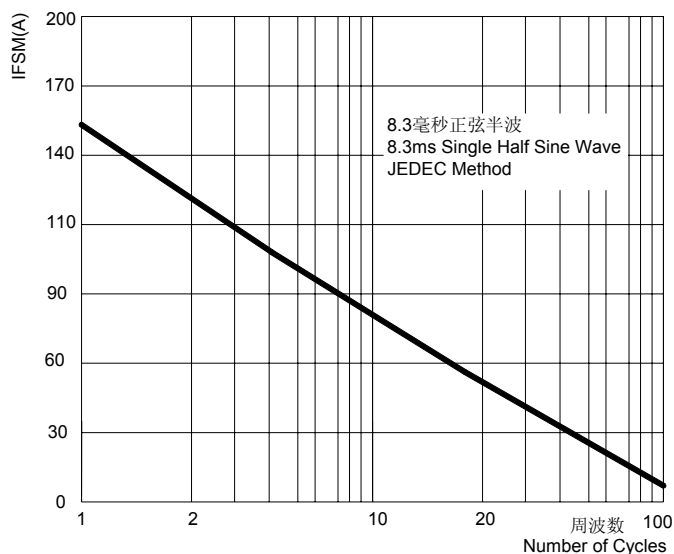


图3: 典型正向特性曲线

FIG.3: TYPICAL FORWARD CHARACTERISTICS

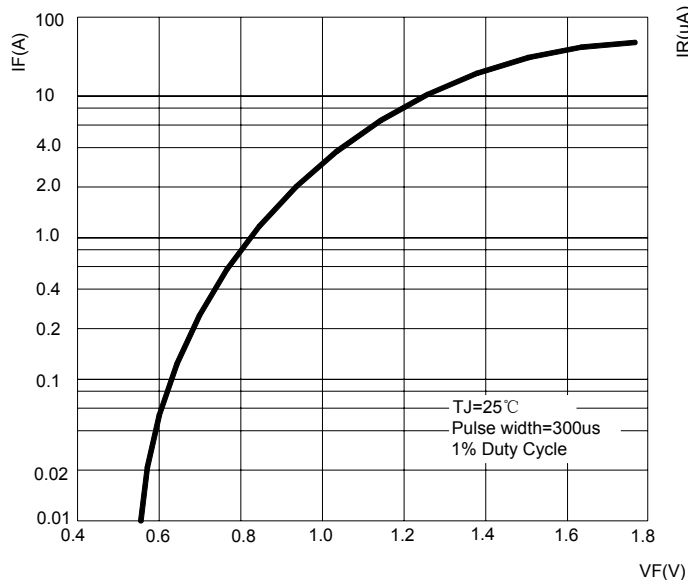


图4: 典型反向特性曲线

FIG.4: TYPICAL REVERSE CHARACTERISTICS

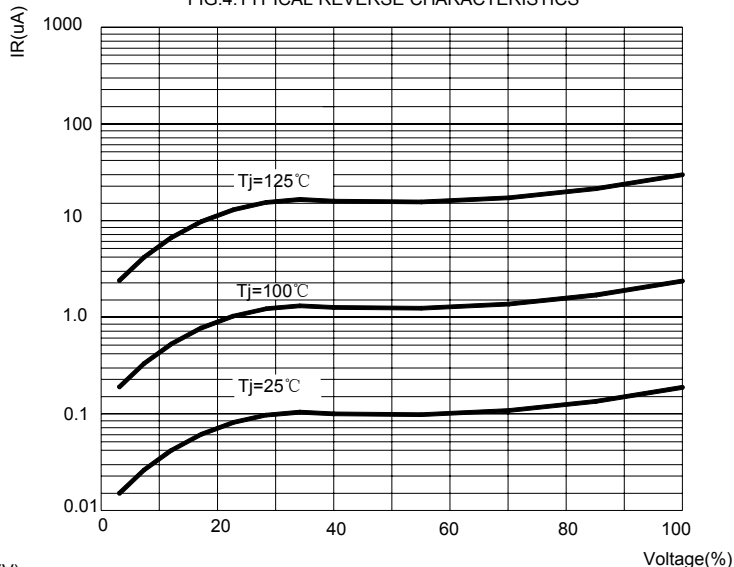


图5: 反向恢复时间试验电路及测试波形示意图

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

