



小信号快速开关二极管 Small Signal Fast Switching Diodes

■特征 Features

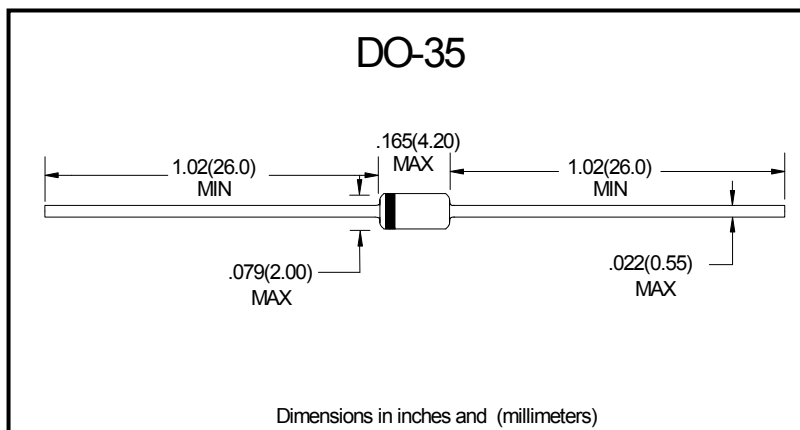
- V_R 75V
- I_{FAV} 150mA

■用途 Applications

- 极端的快速开关 Extreme fast switches

■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	最大值 Max
反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	V		100
反向电压 Reverse voltage	V_R	V		75
正向浪涌峰值电流 Peak forward surge current	I_{FSM}	A	$t_p=1\mu s$	2
正向重复峰值电流 Repetitive peak forward current	I_{FRM}	mA		500
正向持续电流 Forward continuous current	I_F	mA		300
正向平均电流 Average forward current	I_{FAV}	mA	$V_R=0$	150
功率消耗 Power dissipation	P_{tot}	mW	$L=4mm, T_L=45^\circ C$	440
			$L=4mm, T_L \leq 25^\circ C$	500
典型热阻 Thermal resistance	R_{thJA}	$^\circ C/W$	结到环境, $L=4$ 毫米, $T_L=$ 常温 junction to ambient air, $L=4mm, T_L=$ constant	350
最大结温 Maximum junction temperature	T_j	$^\circ C$		175
存储温度范围 Storage temperature range	T_{stg}	$^\circ C$		-65 to +175

■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	条件 Conditions	最大值 Max
正向电压 Forward voltage	V_F	mV	$I_F=200\text{mA}$	1000
反向电流 Reverse current	I_R	nA	$V_R=20\text{V}$	25
	I_R	μA	$V_R=20\text{V}, T_j=150^\circ\text{C}$	50
	I_R	μA	$V_R=75\text{V}$	5
击穿电压 Breakdown voltage	$V_{(BR)}$	V	$I_R=100\mu\text{A}, t_p/T=0.01, t_p=0.3\text{ms}$	100(min)
二极管电容 Diode capacitance	C_D	pF	$V_R=0, f=1\text{MHz}, V_{HF}=50\text{mV}$	4
反向恢复时间 Reverse recovery time	t_{rr}	ns	$I_F=I_R=10\text{mA}, i_R=1\text{mA}$	8
	t_{rr}	ns	$I_F=10\text{mA}, V_R=6\text{V}, i_R=0.1 \times I_R, R_L=100\Omega$	4

■特性曲线 (典型) Characteristics(Typical)

图1: 正向电压与结温的关系

FIG1: Forward Voltage vs. Junction Temperature

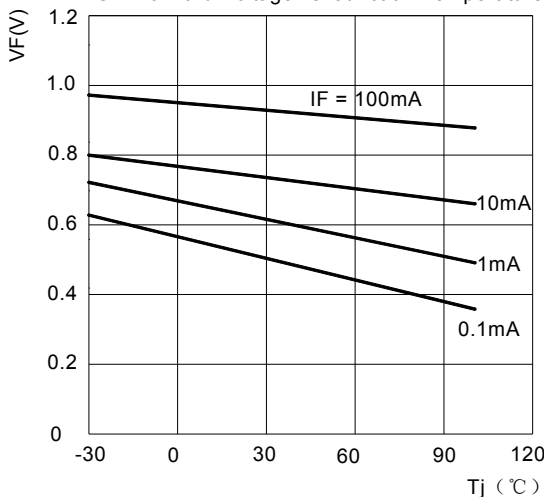


图2: 正向电流与正向电压的关系

FIG2: Forward Current vs. Forward Voltage

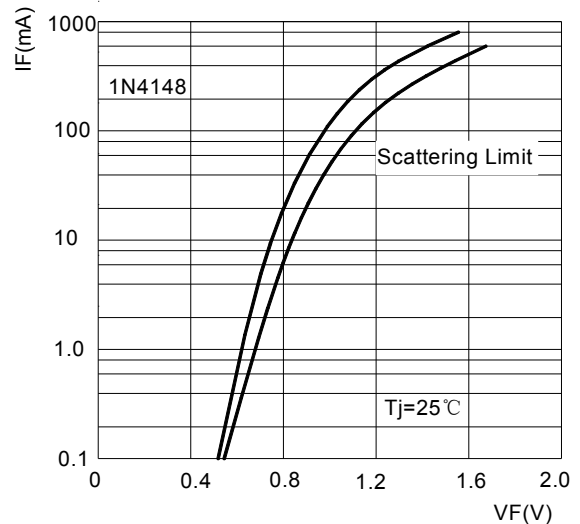


图3: 反向电流与反向电压的关系

FIG3: Reverse Current vs. Reverse Voltage

