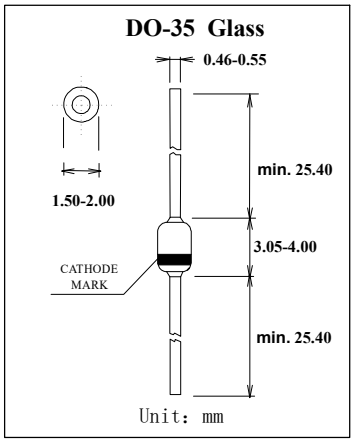
联拓电子

1N4148 / 1N4448

开关二极管 Switching Diodes



特征 Features

- 反向漏电流小。Low reverse leakage
- 开关速度快。Fast switching speed
- 最大功率耗散500mW。Maximum power dissipation 500mW
- 高稳定性和可靠性。High stability and high reliability

机械数据 Mechanical Data

封装：DO-35 玻璃封装 Case: DO-35 Glass Case

极性：色环端为负极 Polarity: Color band denotes cathode end

安装位置：任意 Mounting Position: Any

极限值和温度特性 TA = 25℃ 除非另有规定。

Maximum Ratings & Thermal Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

	符号 Symbols	1N4148	1N4448	单位 Unit
不重复峰值反向电压 Non-repetitive Peak Reverse Voltage	V_{RM}	100		V
反向峰值电压 peak repetitive Reverse Voltage	V_{RRM}	75		V
最大正向平均电流 (Note 1) Forward Continuous Current (Note 1)	I_{FM}	300	500	mA
平均整流输出电流 (Note 1) Average Rectified Output Current (Note 1)	I_O	150		mA
正向（不重复）浪涌电流 @t=1.0S Non-Repetitive Peak Forward Surge Current @t=1.0uS	I_{FSM}	1.0 2.0		A
功率消耗 Power Dissipation	Pd	500		mW
典型热阻 (Note 1) Type Thermal Resistance (Note 1)	$R_{\theta JA}$	300		K/W
工作结温和存储温度 Operating junction and storage temperature range	Tj, T_{STG}	-65 --- +175		℃

电特性 TA = 25℃ 除非另有规定。

Electrical Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

		符号 Symbols	最小值 MIN.	最大值 MAX.	单位 Unit	测试条件 Test Condition
正向电压 Forward voltage	1N4148	V_{FM}	---	1.0	V	I_F =10mA
	1N4448		0.62	0.72		I_F = 5.0mA
	1N4448		---	1.0		I_F = 100mA
反向电流 Reverse current		I_{RM}	---	5.0	μA	V_R = 75V
				50	μA	V_R = 70V, Tj=150℃
				30	μA	V_R = 20V, Tj=150℃
				25	nA	V_R = 20V
结电容 Junction capacitance		Cj	---	4.0	pF	V_R = 0, f = 1.0MHz
反向恢复时间 Reverse Recovery Time		trr	---	4.0	nS	I_F = 10mA — I_R = 1.0mA V_R = 6.0V, R_L =100Ω

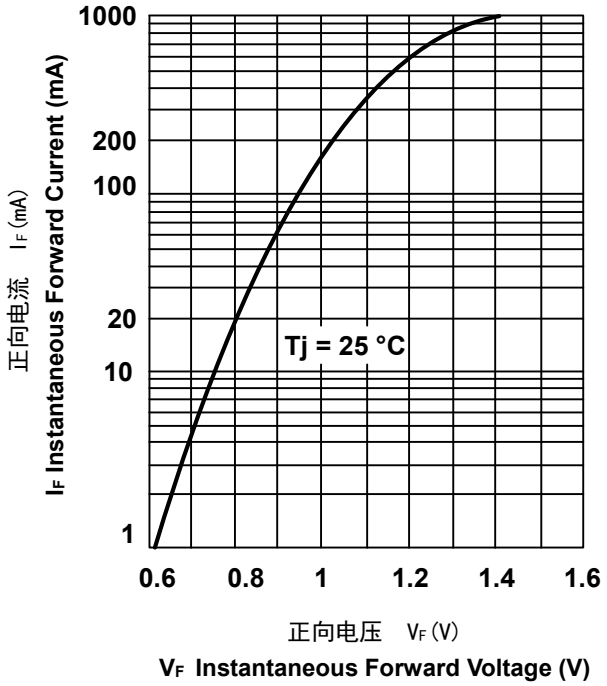
NOTES:1、Valid provided that device terminals are kept at ambient temperatur

如皋市联拓电子有限公司
RUGAO LIANTUO ELECTRONICS CO.,LTD

特性曲线 Characteristic Curves

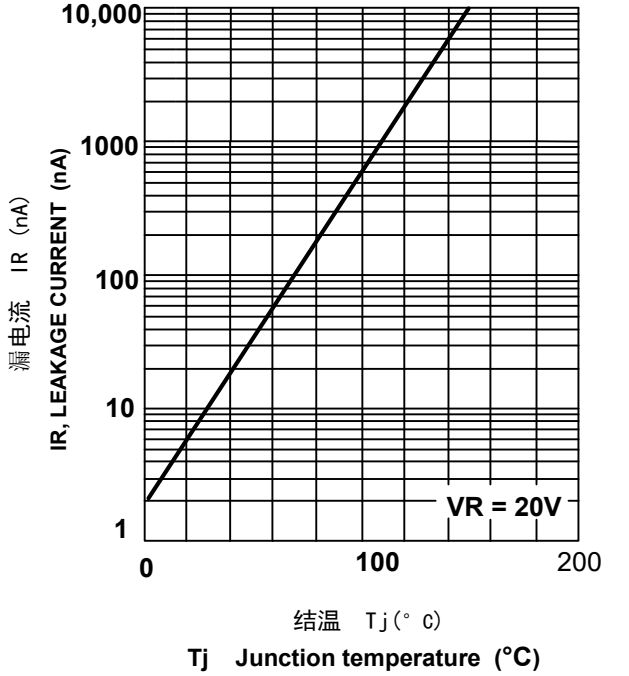
正向特性曲线（典型值）

TYPICAL FORWARD CHARACTERISTIC



泄漏电流和结温

LEAKAGE CURRENT VS JUNCTION TEMPERATURE



功率耗散降额特性曲线

ADMISSIBLE POWER DISSIPATION