

超高频高压二极管

产品级别**Product Grade**

- 级别：民用级，工业级
- Grade: Civilian, Industry

电压范围：4~20KV 正向平均电流：5mA

Super Fast High Voltage Diodes

Voltage Range: 4~20KV Average Forward Current: 5mA

技术资料**Mechanical Data**

- 封装形式： 塑封
- 引线：轴向引线
- 极性：色环指示负极
- 高温焊接保证：260±5℃ ≧ 10 秒，
焊接部位距管体 10mm 以上，引线拉力 2.3 千克



- Case: Molded plastic
- Lead: Axial leads
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 260±5℃ ≧ 10 seconds; 10mm lead Length, 2.3kg tension

产品标准**Product Standard****GB/T 4589.1-2006**

《半导体器件 第 10 部分：分立器件和集成电路总规范》

*Semiconductor Devices –Part 10:**Generic Specification for Discrete Devices and Integrated Circuits***验收标准****Inspection Standard****GB/T 4023-1997**

《半导体器件分立器件和集成电路 第 2 部分：整流二极管》

Semiconductor Devices Discrete Devices and Integrated Circuits Part 2: Rectifier Diodes

参数值和特性

Ratings and Characteristics

除非另有规定，环境温度均为 25℃。

单相，半波，电阻性/电感性负载。

容性负载，电流应降低 20%。

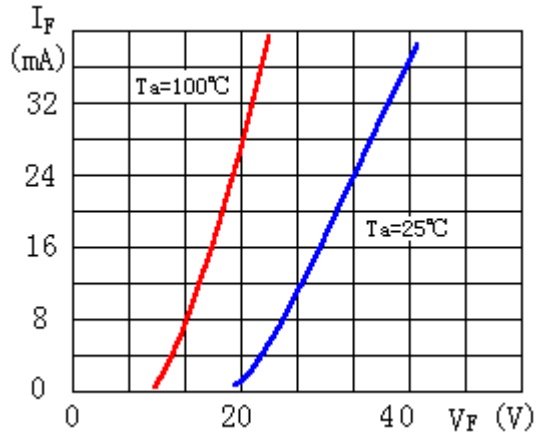
Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, resistive or inductive load.

For capacitive load, derate current by 20%.

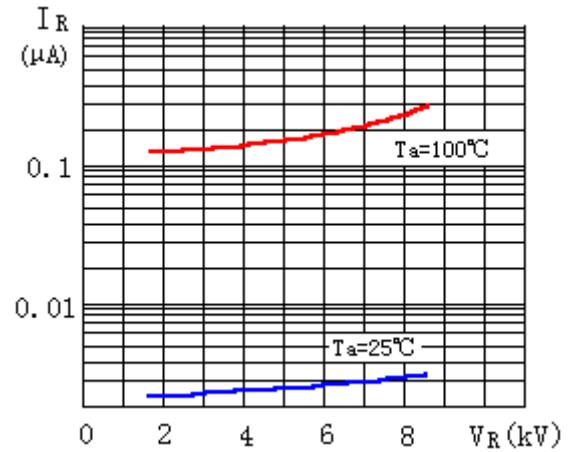
参 数 Parameter	符 号 Symbol	2CL 69A	2CL 70A	2CL 71A	2CL 72A	2CL 73A	2CL 74A	2CL 75A	2CL 76A	2CL 77A	单 位 Unit	
最大反向重复峰值电压 Maximum repetitive peak reverse voltage	V _{RRM}	4	6	8	10	12	14	16	18	20	kV	
最大反向不重复峰值电压 Maximum non-repetitive peak reverse voltage	V _{RSM}	6	8	10	12	14	16	18	20	22	kV	
最大正向平均电流 Maximum average forward rectified current	I _{F(AV)}	(正弦半波，电阻负载，T _A =25℃) (50Hz Half-sine wave, resistance load, T _A =25℃)									mA	
正向峰值浪涌电流 Peak forward surge current	I _{FSM}	(正弦半波 50Hz，一个周期，T _A =25℃) (50Hz Half-sine wave, 1 cycle, T _A =25℃)									A	
最大瞬时正向压降 (I _{FM} =5mA) Maximum instantaneous forward voltage @ 5mA	V _{FM}	20	23	25	30	38	45	50	55	63	V	
最大直流反向电流 Maximum DC reverse current	I _R	≤ 2 (T _A =25℃)									μA	
		≤ 10 (T _A =100℃)										
最大反向恢复时间 (T _A =25℃) Maximum reverse recovery time (T _A =25℃)	T _{rr}	≤ 100									nS	
有效工作结温 Operating virtual junction temperature range	T _J	民用级 (Civilian)					工业级 (Industry)					℃
		-40 to +100					-40 to +110					
贮存温度范围 Storage temperature range	T _{STG}	民用级 (Civilian)					工业级 (Industry)					℃
		-40 to +120					-40 to +125					

■ 特性曲线 RATINGS AND CHARACTERISTIC CURVES



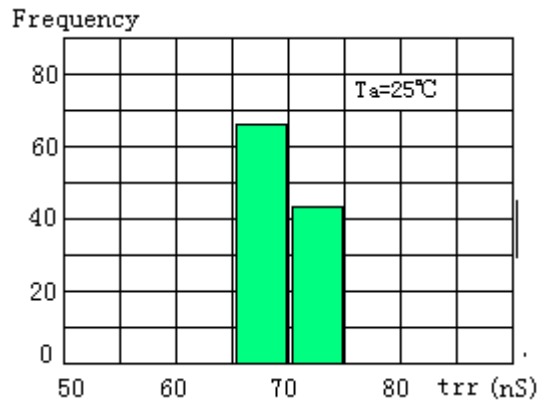
正向特性曲线

Forward Characteristics (2CL71A)



反向特性曲线

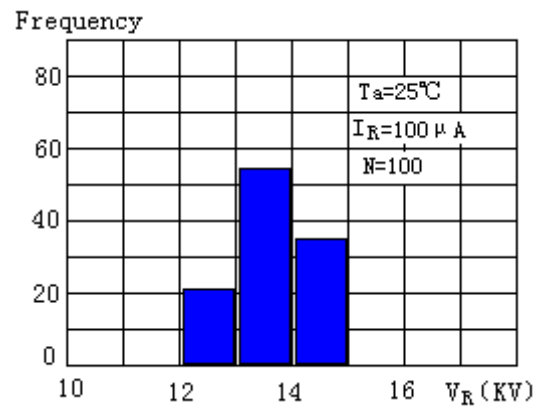
Reverse Characteristics (2CL71A)



反向恢复时间分布

Reverse Recovery Time Distribution

(2CL71A)



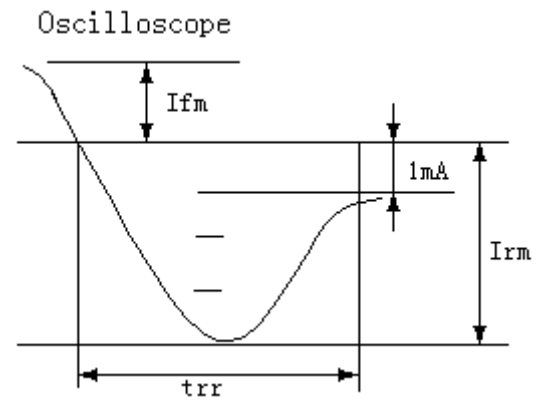
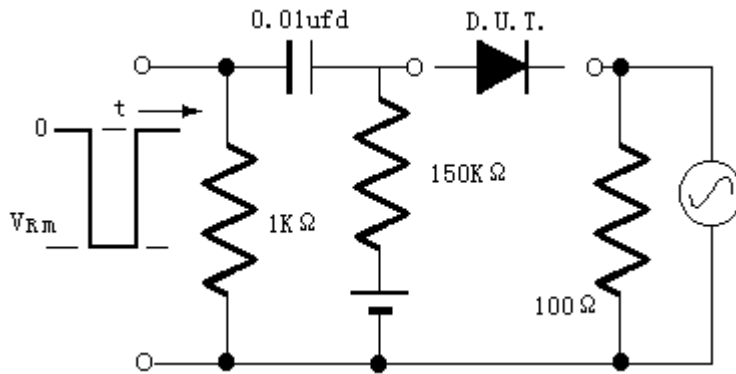
反向雪崩电压分布

Avalanche Breakdown Voltage Distribution

(2CL71A)

■ 反向恢复时间基本测试电路

Reverse Recovery Time Basic Test Circuit



■ 外形图示及尺寸

Type	2CL69A	2CL70A	2CL71A	2CL72A~ 2CL77A
A	4.8	6.5		10.0
Φ	2	2.5		

