

## DFN0603-2L ESD 静电保护二极管

### ■ Features 特点

IEC 61000-4-2 Level 4 ESD Protection 静电保护

- ±10kV Contact Discharge 接触放电

- ±15kV Air Discharge 空气放电

### ■ Applications 应用

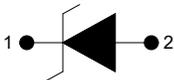
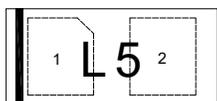
Notebooks Computer 笔记本电脑

SIM Ports and Ethernet 用户识别和以太网

USB&ATM Interface 移动 U 盘及自动柜员机接口

Monitors and flat panel display 监视器和平板显示器

### ■ Internal Schematic Diagram 内部结构



### ■ Absolute Maximum Ratings 最大额定值

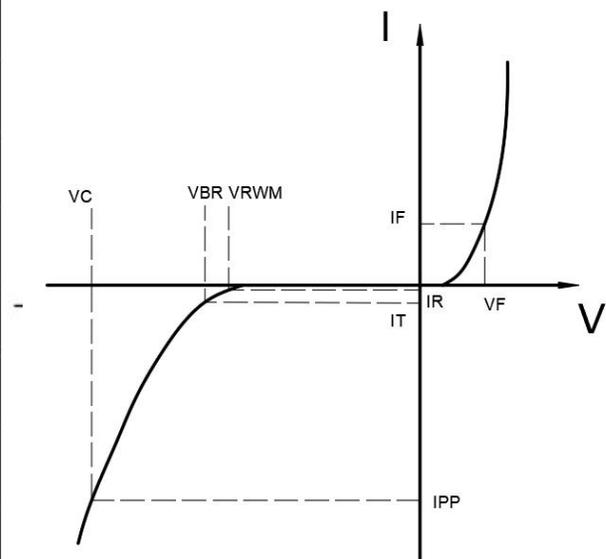
| Characteristic 特性参数                               | Symbol 符号 | Rat 额定值 | Unit 单位 |
|---|-----------|---------|---------|
| ESD (IEC61000-4-2 contact discharge)<br>@25°C接触放电 | $V_{ESD}$ | ±10     | KV      |
| ESD (IEC61000-4-2 air discharge) @25°C<br>空气放电    | $V_{ESD}$ | ±15     | KV      |
| Peak Pulse Current @25°C峰值脉冲电流                    | $I_{PP}$  | 4       | A       |
| Peak Pulse Power @25°C峰值脉冲功率                      | $P_{PK}$  | 80      | W       |
| Lead Temperature 管脚温度                             | $T_L$     | 260     | °C      |
| Operating Temperature 工作温度                        | $T_{op}$  | -40~85  | °C      |
| Junction Temperature 结温                           | $T_J$     | 125     | °C      |
| Storage Temperature 储存温度                          | $T_{stg}$ | -55~150 | °C      |

■ **Electrical Characteristics 电特性**

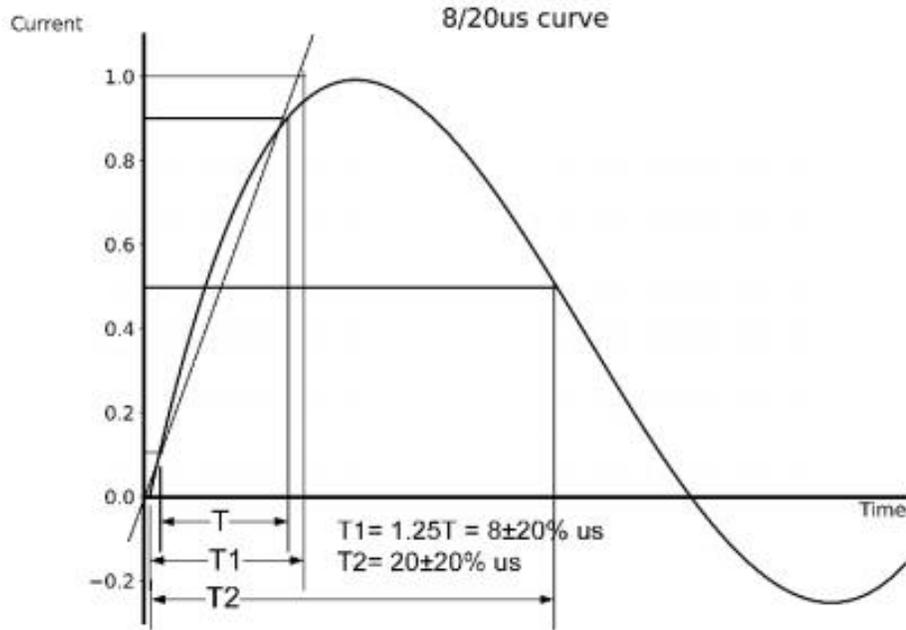
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

| Characteristic Parameters<br>特性参数   | Symbol<br>符号 | Min<br>最小值 | Typ<br>典型值 | Max<br>最大值 | Unit<br>单位    | Condition<br>条件                         |
|-------------------------------------|--------------|------------|------------|------------|---------------|---|
| Reverse Stand-off Voltage<br>反向工作电压 | $V_{RWM}$    |            |            | 5          | V             |   |
| Reverse Breakdown Voltage<br>反向击穿电压 | $V_{BR}$     | 6          |            |            | V             | $I_T=1\text{mA}$                        |
| Reverse Leakage Current<br>反向漏电流    | $I_R$        |            |            | 1          | $\mu\text{A}$ | $V_{RWM}=5\text{V}$                     |
| Clamping Voltage<br>钳位电压            | $V_C$        |            | 10         |            | V             | $I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$ |
| Clamping Voltage<br>钳位电压            | $V_C$        |            | 15         |            | V             | $I_{PP}=4\text{A}, t_p=8/20\mu\text{s}$ |
| Diode Capacitance<br>二极管电容          | $C_D$        |            | 0.6        |            | pF            | $V_R=0\text{V}, f=1\text{MHz}$          |

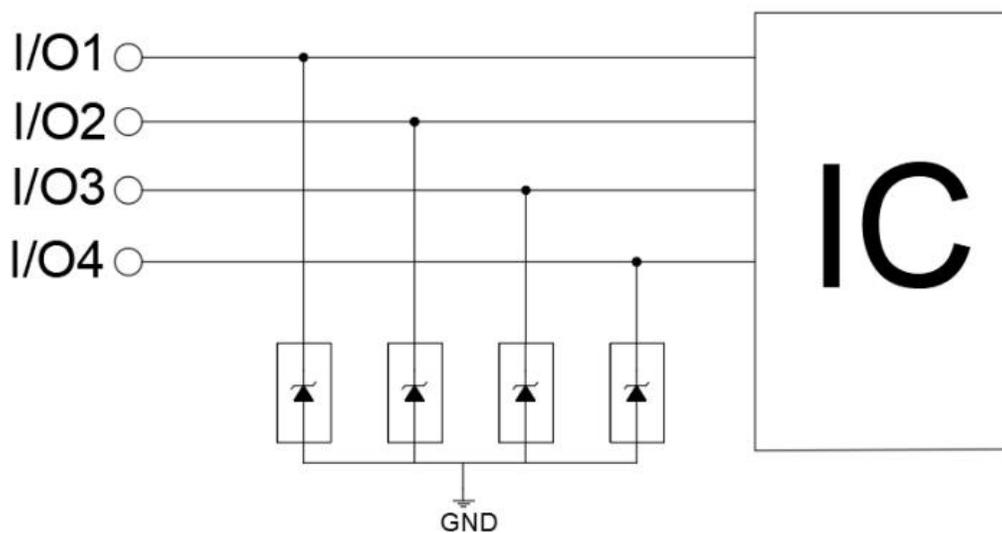
| Symbol    | Parameters                          |
|-----------|-------------------------------------|
| $V_{RWM}$ | Peak Reverse Working Voltage        |
| $I_R$     | Reverse Leakage Current @ $V_{RWM}$ |
| $V_{BR}$  | Breakdown Voltage @ $I_T$           |
| $I_T$     | Test Current                        |
| $I_{PP}$  | Maximum Reverse Peak Pulse Current  |
| $V_C$     | Clamping Voltage @ $I_{PP}$         |
| $I_F$     | Forward Current                     |
| $V_F$     | Forward Voltage @ $I_F$             |



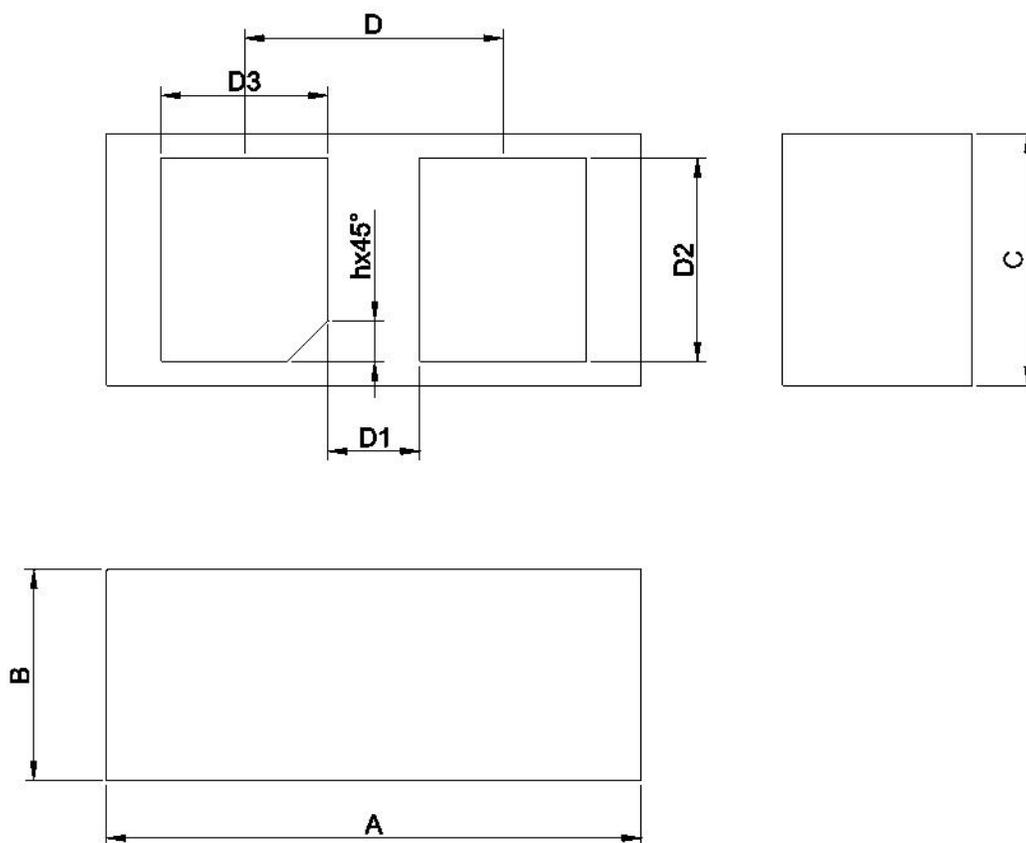
■ Typical Characteristic Curve 典型特性曲线



■ Typical Applications 典型应用



■ Dimension 外形封装尺寸



Units in millimeters

| SYMBOL | MIN      | NOM   | MAX   |
|--------|----------|-------|-------|
| A      | 0.585    | 0.600 | 0.635 |
| B      | 0.270    | 0.300 | 0.310 |
| C      | 0.285    | 0.310 | 0.335 |
| D      | 0.340REF |       |       |
| D1     | 0.150REF |       |       |
| D2     | 0.210    | 0.230 | 0.250 |
| D3     | 0.170    | 0.190 | 0.210 |