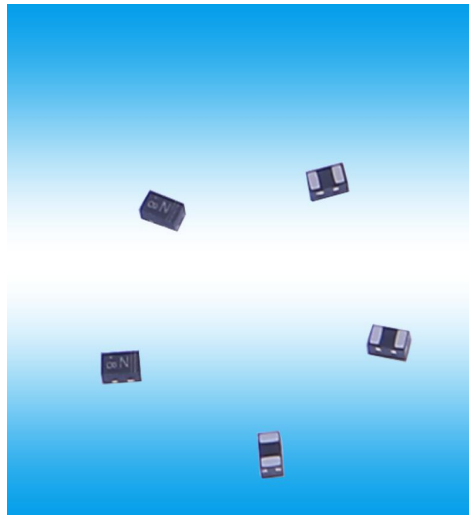


靜電保護元件ESD Protector

KESD0501BL



Description

KESD0501BL uses ultra-small DFN1006 package. Each KESD0501BL device can protect one high-speed data line. It offers system designers flexibility to protect single data line where space is a premium concern. The combined features of low capacitance, ultra-small size and high ESD robustness make KESD0501BL ideal for high-speed data port and high-frequency line applications, such as cellular phones and HD visual devices.

KESD0501BL使用超小的DFN1006包装。每个KESD0501BL设备可保护一条高速数据线。它为系统设计者提供了灵活性，以保护单个数据线的空间是一个重要的关注。KESD0501BL具有低电容、超小体积和高ESD鲁棒性的特点，是手机、高清视觉设备等高速数据端口和高速线路应用的理想选择。

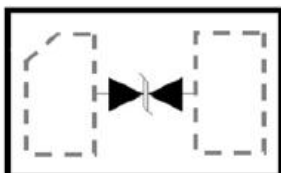
Features产品特征

- Transient protection for high-speed data lines IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (Air)/ $\pm 8\text{kV}$ (Contact); IEC 61000-4-4 (EFT) 40A (5/50 ns); Cable Discharge Event (CDE)
- 高速数据线暂态保护 IEC 61000-4-2 (ESD) $\pm 15\text{kV}$ (Air)/ $\pm 8\text{kV}$ (接触); IEC 61000-4-4 (EFT) 40A (5/50ns); 电缆放电事件 (CDE)
- Package optimized for high-speed lines
适合高速线路的包装优化
- Low capacitance: 0.5pF (Typical)
低电容: 0.5pF (典型)
- Protects one data, control line
保护一个数据, 控制线
- Low clamping voltage
低电压钳位
- Ultra-small package (1.0mmX0.6mmX0.5mm)
超薄包装 (1.0毫米0.6毫米0.5毫米)
- Low leakage current
低泄漏电流

Applications产品应用

- Serial ATA
ATA接口
- Desktops, Servers and Notebooks
台式机、服务器和笔记本
- Cellular Phones
移动电话
- MDDI Ports, Display Ports
MDDI端口, 显示端口
- Digital Visual Interfaces (DVI)
数字视觉接口 (DVI)
- USB Data Line Protection
USB数据线保护

PIN CONFIGURATION



CIRCUIT DIAGRAM



靜電保護元件ESD Protector

KESD0501BL

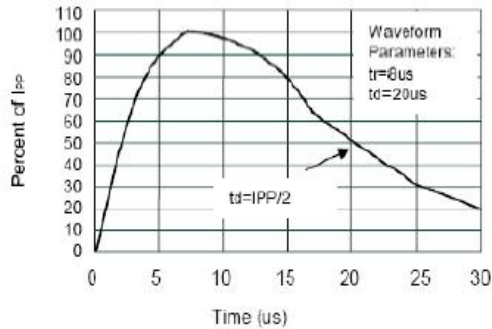
ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Air)	±20	kV
	ESD per IEC 61000-4-2 (Contact)	±20	
P _{PP}	Peak Pulse Power (8/20μs)	88	W
T _{OPT}	Operating Temperature	-55~125	°C
T _{STG}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (T _{amb} =25°C)						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage				5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	6.0			V
I _R	Reverse Leakage Current	V _{RWM} = 5V			100	nA
V _C	Clamping Voltage	I _{PP} = 1A, t _p = 8/20μs			13	V
		I _{PP} = 4A, t _p = 8/20μs			22	V
C _J	Junction Capacitance	V _R = 0V, f = 1MHz		0.5		pF

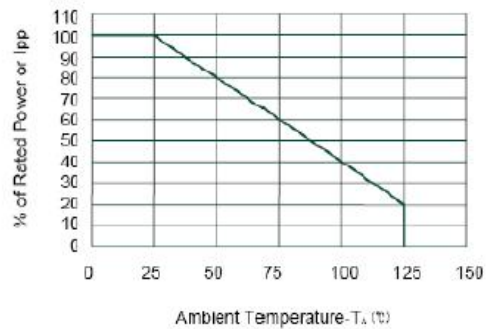
靜電保護元件ESD Protector

KESD0501BL

ELECTRICAL CHARACTERISTICS CURVE

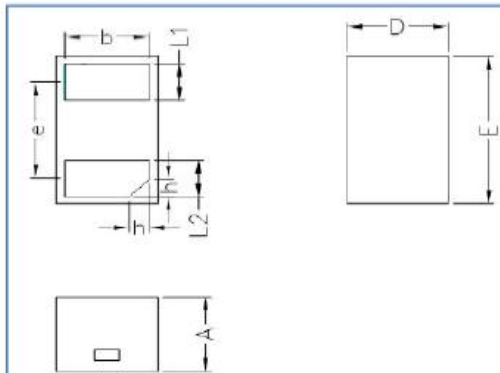


Pulse Waveform



Power Derating Curve

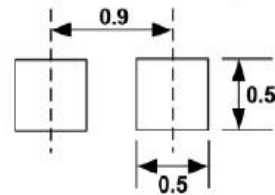
DFN1006 PACKAGE OUTLINE DIMENSIONS



Unit: mm

	MIN	NOM	MAX
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
b	0.45	0.50	0.55
e	0.65BSC		
A	0.45	0.50	0.55
h	0.07	0.12	0.17

Dimension: Millimeter
(Stencil thickness: 0.1)



Soldering Footprint