

自主封測 品質把控 售後保障

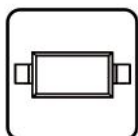
WEB | WWW.TDSEMIC.COM



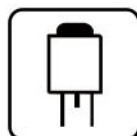
電源管理



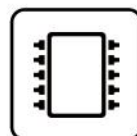
顯示驅動



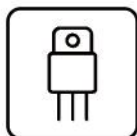
二三極管



LDO穩壓器



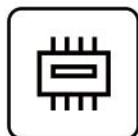
觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



串口通信

PESD5V0S1BA

產品規格說明書

BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSING DIODES

DESCRIPTIONS

The PESD5V0S1BA is a Bi-directional transient voltage suppressing diodes to protect one power line, or one control line, or one low speed data line from overvoltage hazard of Electrostatic Discharge(ESD), Electrical Fast Transients(EFT) and Lightning.

The PESD5V0S1BA's typical applications are Computer Interfaces Protection, Microprocessors Protection, Control Signal Lines Protection etc.

FEATURES

- * Bi-directional TVS;
- * Provides ESD protection to IEC61000-4-2 level 4
 - $\pm 15\text{kV}$ air discharge;
 - $\pm 15\text{kV}$ contact discharge;
- * Ultra-small body with SOD-523 package;
- * Fast response speed $< 1\text{ ns}$;
- * Low clamping voltage;
- * Low operating voltage;
- * RoHS compliant.

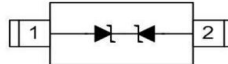
APPLICATIONS

- * Computer Interfaces Protection;
- * Microprocessors Protection;
- * Control Signal Lines Protection;
- * Serial and Parallel Ports Protection;
- * power lines on PCB Protection
- * Latchup Protection;

ORDERING INFORMATION

Part No.	Package	Marking	Material	Packing
PESD5V0S1BA	SOD-323	E6	Halogen free	Tape&Reel

PIN CONFIGURATION



ABSOLUTE MAXIMUM RATINGS

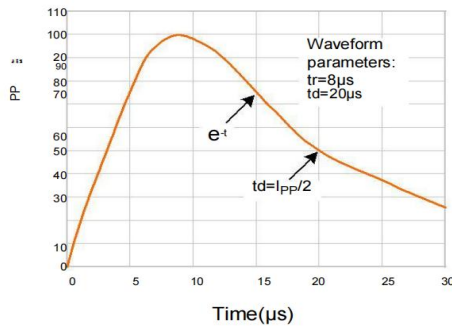
Characteristics	Symbol	Rating	Unit
Peak Pulse Current($t_F=8/20\mu\text{s}$)	I_{PP}	7	A
Operating Supply Voltage(pin-1,-2 to pin-3)	V_{DC}	6	V
ESD per IEC61000-4-2(Air)	V_{ESD-1}	± 15	KV
ESD per IEC61000-4-2(Contact)		± 8	
Lead Soldering Temperature	T_{SOL}	260(10sec.)	$^{\circ}\text{C}$
Operating Temperature Range	T_{OP}	$-55 \sim +125$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STO}	$-55 \sim +150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

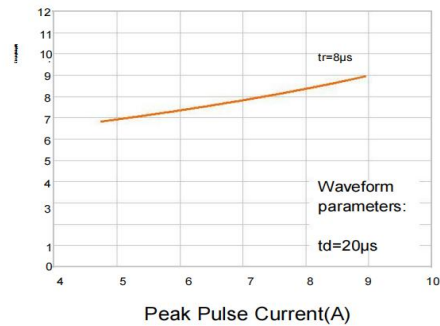
Characteristics	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V _{RWM}	T=25°C	--	--	5	V
Reverse Leakage Current	I _{Leak}	V _{RWM} =5V, T=25°C	--	--	2.5	μA
Reverse Breakdown Voltage	V _{BR}	I _{BR} =1mA, T=25°C	6	--	7	V
Clamping Voltage	V _{CL}	I _{PP} =5A, t _p =8/20μs, T=25°C	--	7	8	V
Clamping Voltage	V _{CL}	I _{PP} =7A, t _p =8/20μs, T=25°C	--	11	18.6	V
ESD Holding Voltage	V _{hold}	IEC 61000-4-2 6KV, T=25°C, Contact mode	--	10.5	--	--
Capacitance	C _N	V _R =0V, f=1MHz, T=25°C	--	13.5	15	pF

TYPICAL ELECTRICAL CHARACTERISTICS CURVE

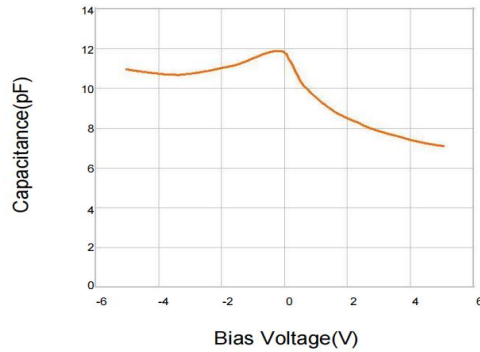
Pulse Waveform



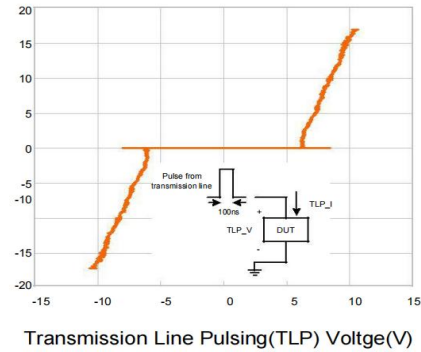
Clamping Voltage vs. Peak Pulse Current



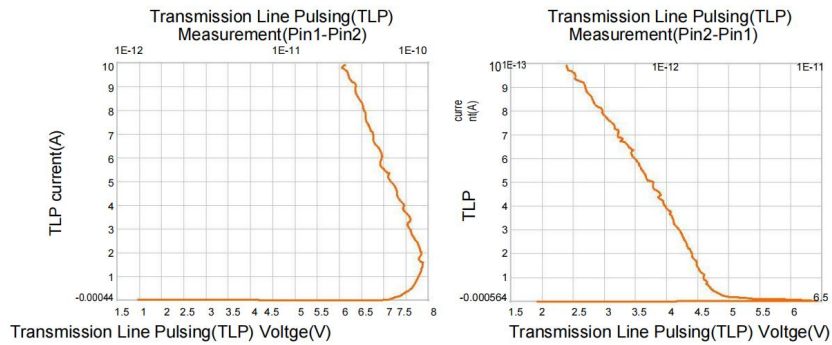
Typical Variation C_{IN} vs. V_{IN}



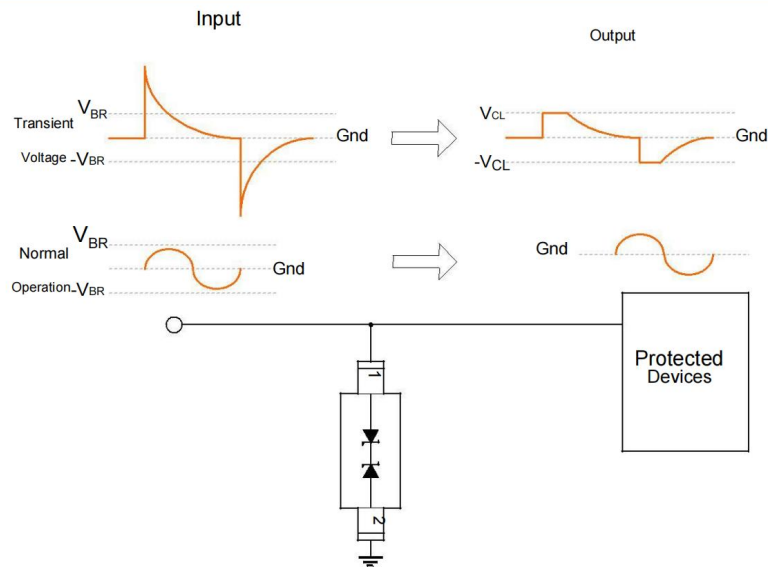
Transmission Line Pulsing(TLP) Measurement



TYPICAL ELECTRICAL CHARACTERISTICS CURVE(continued)

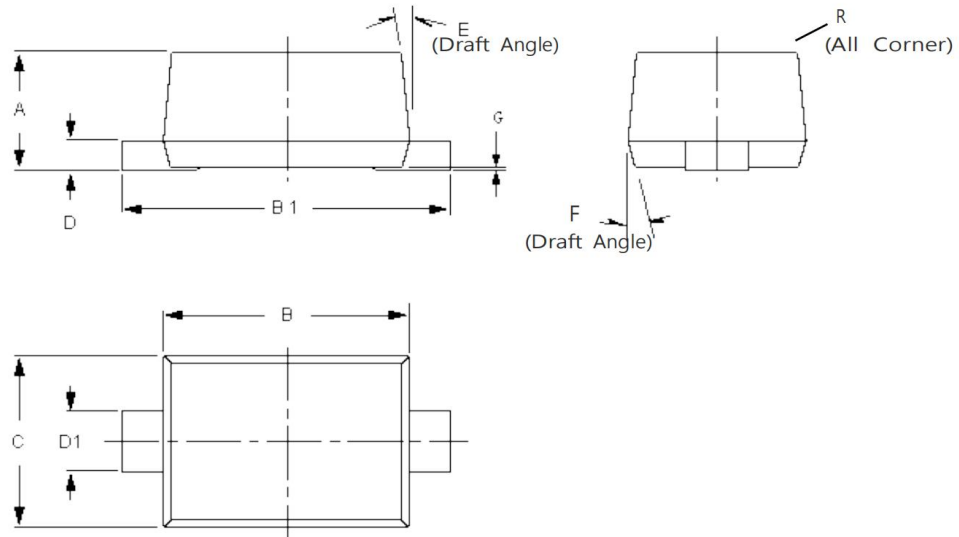


典型应用电路图



PACKAGE OUTLINE

SOD-323 Package Outline



Symbol	Dim in mm		
	Min	Nom	Max
A	0.700	0.800	0.900
B	1.650	1.700	1.750
B1	2.550	2.600	2.750
C	1.250	1.300	1.350
D	0.090	0.100	0.110
D1	0.280	0.300	0.320
E	7°	8°	9°
F	9°	10°	11°
G	0.000	-	0.020
R	0.020	-	0.050

Mold Surface roughness: < 4μm