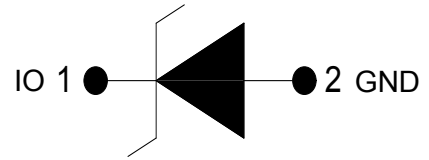


Description

The CESDXXD5 is a Transient Voltage Suppressor that designed to protect components which are connected to data and transmission lines against electrostatic discharge (ESD) , electrical fastTransients (EFT) , and lightning . All pins are rated to withstand 30kv ESD pulses using theIEC61000-4-2 air discharge methods.



Features

- IEC 61000-4-2 Level 4 ESD Protection
 - ±30kV Contact Discharge
 - ±30kV Air Discharge
- 250W Peak pulse Power (8/20us)
- RoHS compliance
- Unidirectional configuration
- Low clamping voltage
- Low leakage current
- Protects one power or I/O

Applications

- Portable electronics
- Control & monitoring systems
- Servers, notebooks, and desktop PCs
- Set-top box
- Communication systems
- Digital cameras

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P _{pk}		250	W
Peak pulse current (tp=8/20us)@25°C	I _{PP}		Refer to Table-5	A
ESD (IEC61000-4-2 air discharge) @25°C	V _{ESD}		±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V _{ESD}		±30	kV
Junction temperature	T _J		150	°C
Operating temperature	T _{OP}	-40	125	°C
Storage temperature	T _{STG}	-55	150	°C
Lead temperature	T _L		260	°C

Electrical Characteristics

Symbol	Description
V _{RWM}	Rated reverse stand-off voltage
V _{BR}	Minimum breakdown voltage @I _T = 1mA
V _{CL}	Typical Clamping voltage
I _{PP}	Maximum peak pulse current
I _R	Reverse leakage current @V _{RWM}
C _O	Typical line capacitance (V _{IO} =0V, V _{P-P} = 30mV, f = 1MHz)

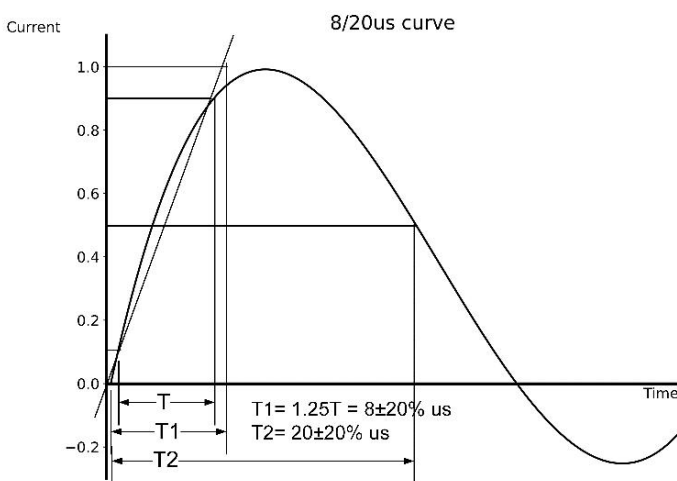
Table-4 Parameters Description

At TA = 25°C unless otherwise noted

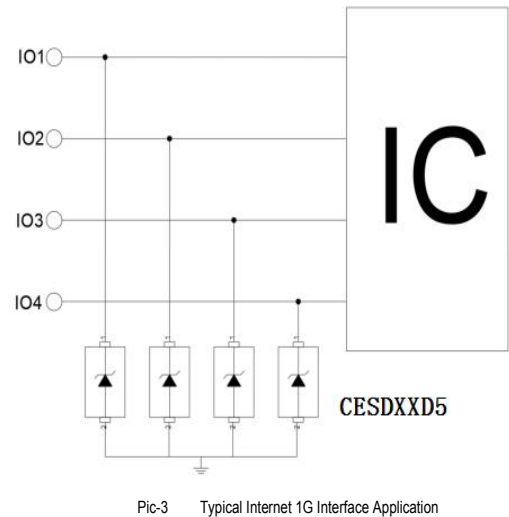
Part Number	V _{RWM}	V _{BR}	V _{CL@I=1A}	I _{PP}	V _{CL@I=I_{PP}}	I _R	C _J
	(V)	(V)	(V)	(A)	(V)	(uA)	(pF)
CESD3V3D5	3.3	4.5	8.5	16.0	18.0	1.0	200
CESD5V0D5	5.0	6.5	9.5	15.0	20.0	1.0	180
CESD12VD5	12.0	13.3	20.0	8.0	35.0	1.0	100
CESD15VD5	15.0	16.5	25.0	6.0	45.0	1.0	60
CESD24VD5	24.0	26.0	40.0	4.0	55.0	1.0	40

Table-5 Electrical Characteristics for All Series

Typical Characteristic

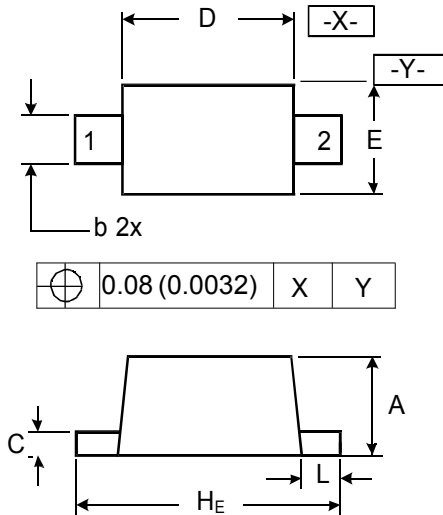



Typical Application



Package outline dimensions

SOD-523

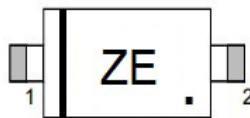


	0.08 (0.0032)	X	Y
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DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking



Ordering information

Order code	Package	Baseqty	Delivery mode	Marking
UMW CESD3V3D5	SOD-523	3000	Tape and reel	ZM
UMW CESD5V0D5	SOD-523	3000	Tape and reel	ZP
UMW CESD12VD5	SOD-523	3000	Tape and reel	ZY
UMW CESD15VD5	SOD-523	3000	Tape and reel	ZE
UMW CESD24VD5	SOD-523	3000	Tape and reel	ZF