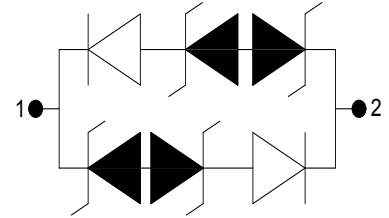


## Description

The CDSOD323-T05C is Transient Voltage Suppressor that designed to protect components which are connected to data and transmission lines against electrostatic discharge (ESD), electrical fast transient (EFT), and lightning. All pins are rated to withstand 25kV ESD pulses using the IEC61000-4-2 air discharge method.



## Features

- IEC 61000-4-2 Level 4 ESD Protection
  - ±25kV Contact Discharge
  - ±25kV Air Discharge
- 300W Peak pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 5.0V
- Low leakage current
- RoHS compliant
- Protecting one bi-directional lines
- Junction capacitance: 0.8pF Typ.

## Applications

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

**Absolute Maximum rating** Overoper atingfree-airtempe raturerange(unle ssotherwisenoted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>		300	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		15	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>		±25	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>		±25	kV
Junction temperature	T <sub>J</sub>		150	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>		260	°C

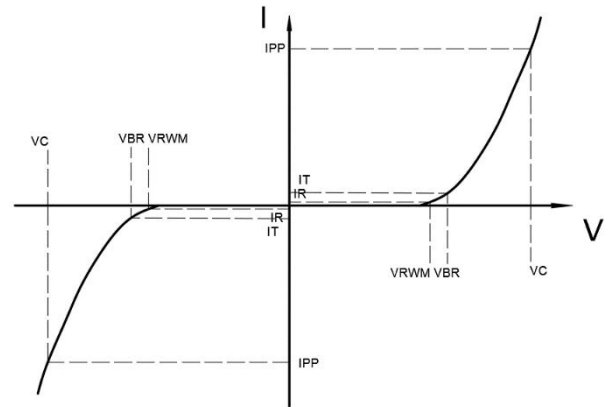
Table-3 Absolute Maximum rating

**Electrical Characteristics** At TA = 25°C unless otherwise noted

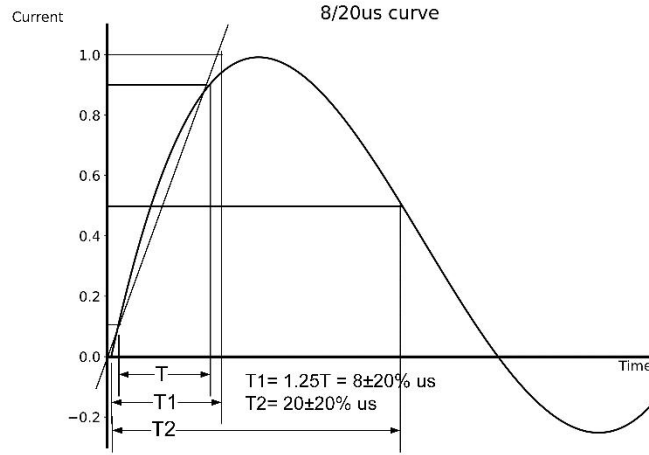
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V <sub>RWM</sub>				5.0	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	6.5			V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =5.0V			1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A; tp=8/20us			8	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =15A; tp=8/20us			20	V
Junction Capacitance	C <sub>J</sub>	I/O to GND; V <sub>R</sub> =0V; f=1MHz		0.8		pF

Table-4 Electrical Characteristics

Symbol	Parameters
V <sub>RWM</sub>	Peak Reverse Working Voltage
I <sub>R</sub>	Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>



Typical Characteristic



**Marking**

**Ordering information**

Order code	Package	Base qty	Delivery mode
UMW CDSOD323-T05C	SOD-323	3000	Tape and reel

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