UMW CDSOD323-TxxC

1.Description

The Transient Voltage Supressor Array series offers a choice of voltage types ranging from 3 V to 24 V in a unidirectional or bidirectional configuration.

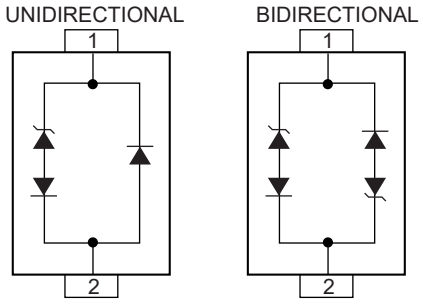
2.Features

- Protects one line or one I/O port
- Bidirectional configuration
- ESD protection 30 kV max.
- Low capacitance: ~3 pF typical

3.Applications

- Cellularphones
- PDAs and notebooks
- Digital cameras
- MP3 playersand GPS
- USB interface

4.Pinning information



SOD-323

5.Electrical & Thermal Characteristics

Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20μs)	P_{PP}	350	W
Junction Temperature	T_J	-55 to 150	°C
Storage Temperature	T_S	-55 to 150	°C

6.Environmental Characteristics

Parameter	Symbol	Uni-T03	Bi-T03C	Uni-T05	Bi-T05C	Uni-T08	Bi-T08C	Uni-T12	Bi-T12C	Unit
Minimum Breakdown Voltage @ 1mA	V_{BR}	4		6		8.5		13.3		V
Working Peak Voltage	V_{WM}	3.3		5		8		12		V
Maximum Clamping Voltage @ I_P=1A	V_C	7		9.8		13.4		19		V
Typical Clamping Voltage	V_C	19V		18.3V		18.5V		28.3V		V
@ 8/20 μs @ I_{PP}	V_C	@20A		@17A		@17A		@11A		V
Maximum Leakage Current @ V_{WM}	I_D	5		5		5		1		μA
Typical Capacitance @0V, 1MHz	C_J	3								pF

Parameter	Symbol	Uni-T15	Bi-T15C	Uni-T18	Bi-T18C	Uni-T24	Bi-T24C	Unit
Minimum Breakdown Voltage @ 1mA	V_{BR}	16.7		20		26.7		V
Working Peak Voltage	V_{WM}	15		18		24		V
Maximum Clamping Voltage @ I_P=1A	V_C	24		29		43		V
Typical Clamping Voltage	V_C	31.8V		45V		56V		V
@ 8/20 μs @ I_{PP}	V_C	@10A		@8A		@6A		V
Maximum Leakage Current @ V_{WM}	I_D	1						μA
Typical Capacitance @0V, 1MHz	C_J	3						pF

Notes:

1.Part numbers with suffix “C” indicate bidirectional device, i.e. CDSOD323-T05C.

2.For bidirectional devices only, the electrical specifications apply in both directions.

7.Typical characteristic

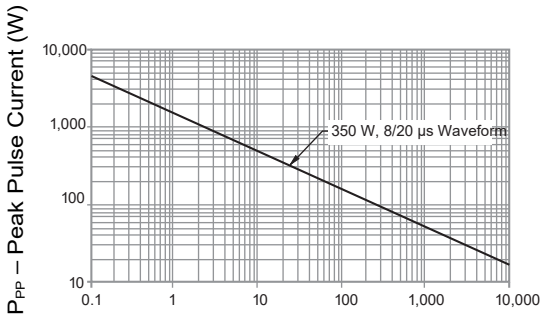


Figure 1: Peak Pulse Power vs Pulse Time

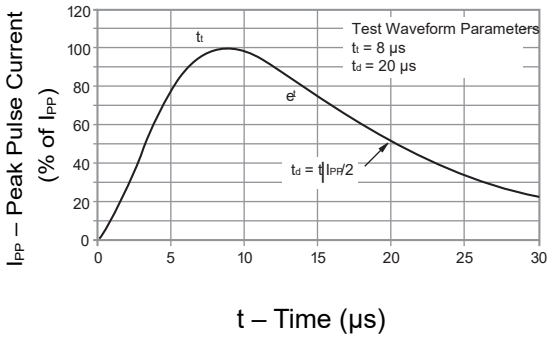
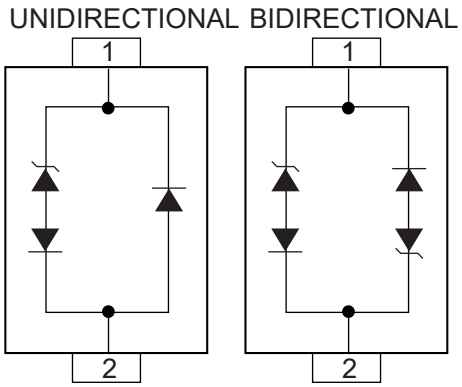


Figure 2: Pulse Waveform

8.Block Diagram



How to Order

CD SOD323 - T 05 C

Common Code
Chip Diode

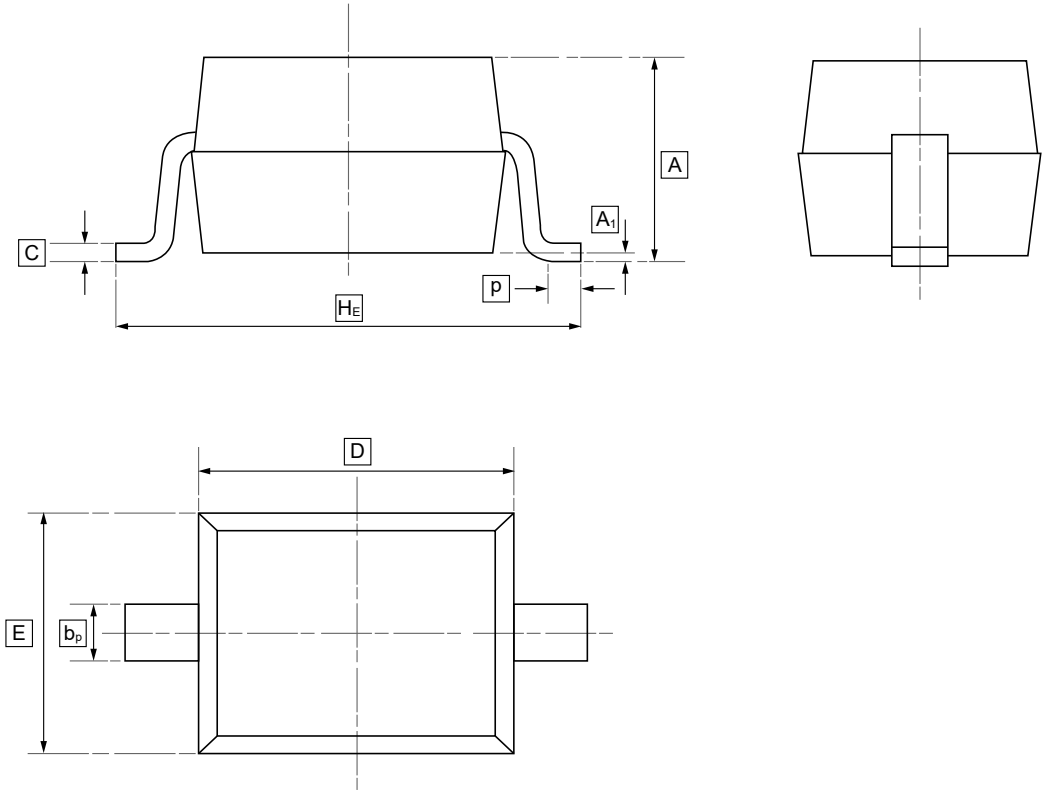
Package
SOD323 = SOD-323 Package

Model
T = Transient Voltage Suppressor

Working Peak Reverse Voltage
05 = 5 V_{WM} (Volts)

Suffix
C = Bidirectional Diode

9.SOD-323 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	A_1	p
Min	0.80	0.25	0.10	1.50	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50

10.Ordering information



ww: Batch Code

Order Code	Marking	Package	Base QTY	Delivery Mode
UMW CDSOD323-T03	3	SOD-323	3000	Tape and reel
UMW CDSOD323-T03C	3C	SOD-323	3000	Tape and reel
UMW CDSOD323-T05	5	SOD-323	3000	Tape and reel
UMW CDSOD323-T05C	5C	SOD-323	3000	Tape and reel
UMW CDSOD323-T08	8	SOD-323	3000	Tape and reel
UMW CDSOD323-T08C	8C	SOD-323	3000	Tape and reel
UMW CDSOD323-T12	2	SOD-323	3000	Tape and reel
UMW CDSOD323-T12C	2C	SOD-323	3000	Tape and reel
UMW CDSOD323-T15	6	SOD-323	3000	Tape and reel
UMW CDSOD323-T15C	6C	SOD-323	3000	Tape and reel
UMW CDSOD323-T18	1	SOD-323	3000	Tape and reel
UMW CDSOD323-T18C	1C	SOD-323	3000	Tape and reel
UMW CDSOD323-T24	4	SOD-323	3000	Tape and reel
UMW CDSOD323-T24C	4C	SOD-323	3000	Tape and reel

11.Disclaimer

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