

1. Description

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

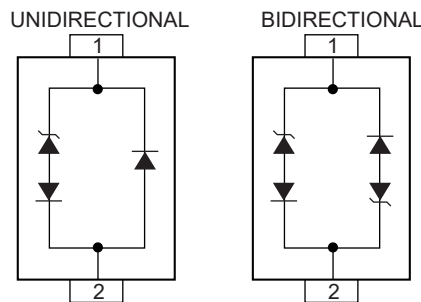
2. Features

- 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 players and 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 @ 8/20 μs @ I_{PP}	V_C	19V		18.3V		18.5V		28.3V		V
	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

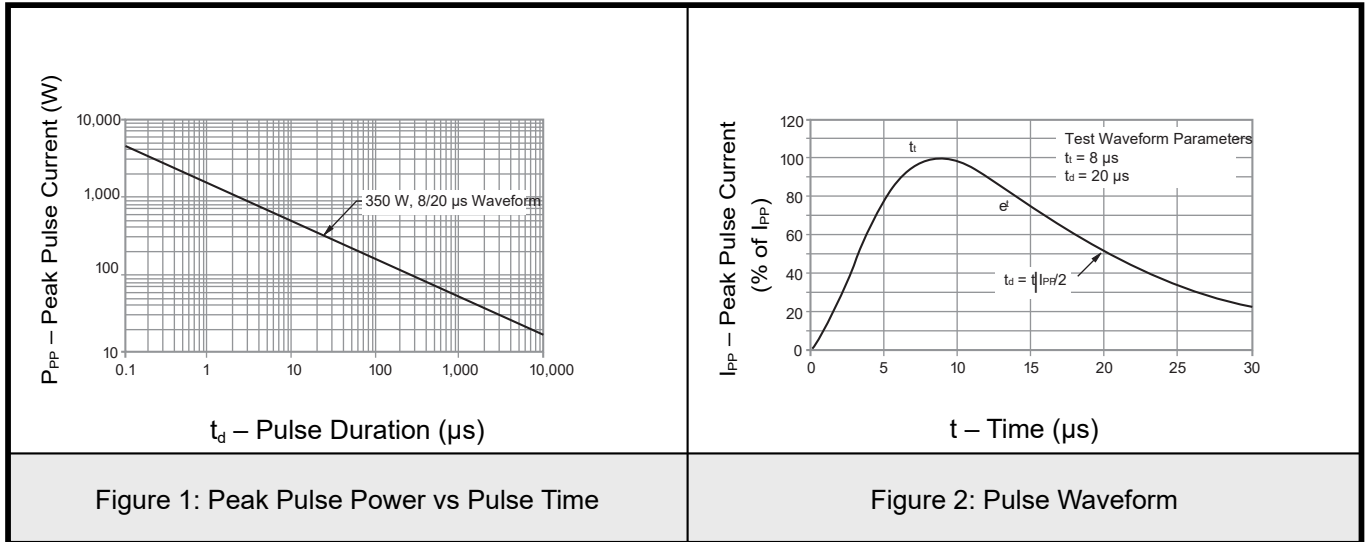
Parameter	Symbol	Uni-T15	Bi-T15C	Uni-T18	Bi-T18C	Uni-T24	Bi-T24C	Unit
Minimum Breakdown Voltage @ 1mA	V_{BR}	16.7		20		26.7		V
Working Peak Voltage	V_{WM}	15		18		24		V
Maximum Clamping Voltage @ $I_P=1A$	V_C	24		29		43		V
Typical Clamping Voltage @ 8/20 μs @ I_{PP}	V_C	31.8V		45V		56V		V
	V_C	@10A		@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.

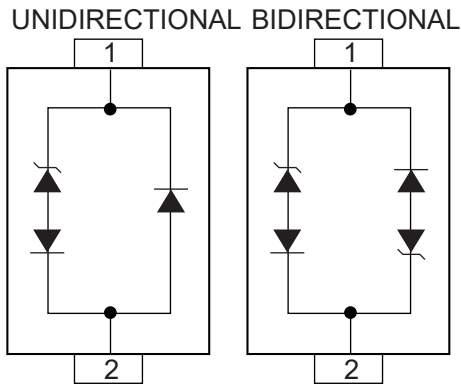


7. Typical characteristic

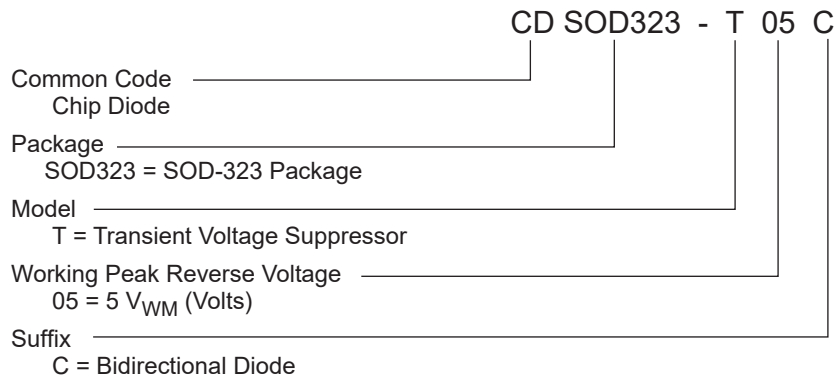




8. Block Diagram

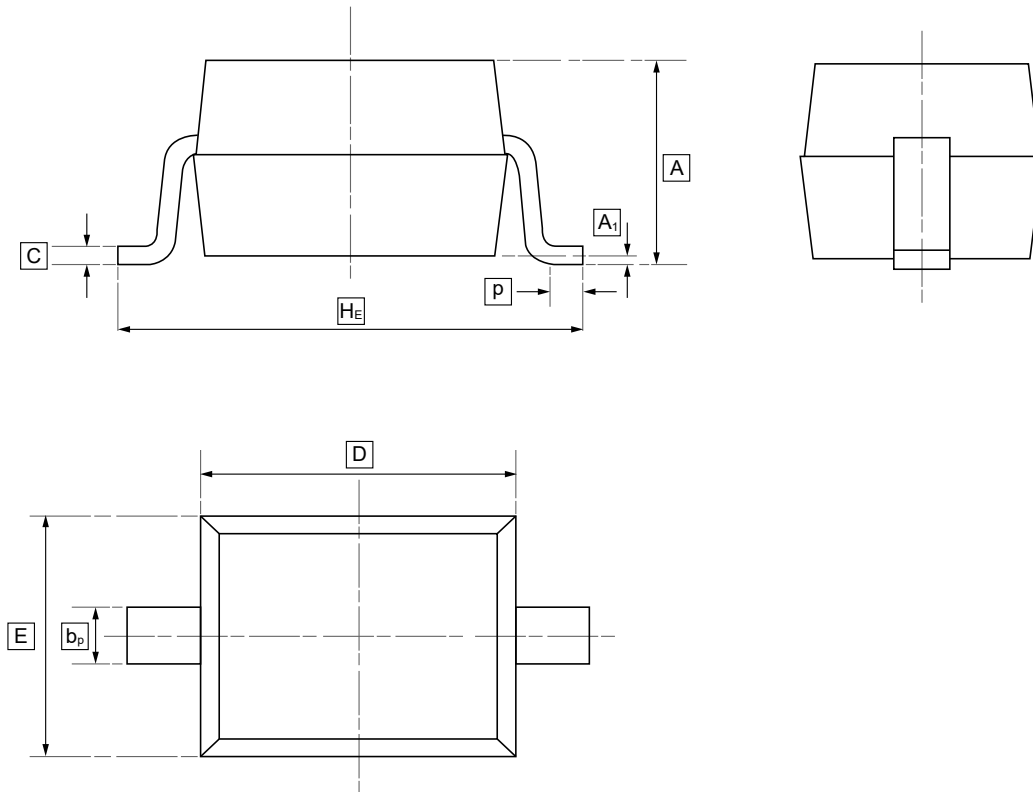


How to Order





9.SOD-323 Package Outline Dimensions

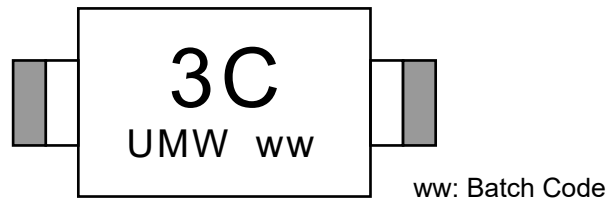


DIMENSIONS (mm are the original dimensions)

Symbol	A	b _p	C	D	E	H _E	A ₁	P
Min	0.90	0.25	0.10	1.60	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



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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