



FEATURES

- Lead Free As Standard
- RoHS Compliant
- Low Capacitance 3pF
- ESD Protection
- Surge Protection

APPLICATIONS

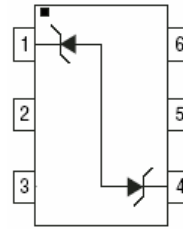
- Personal Digital Assistant (PDA)
- Mobile Phones & Accessories
- Portable Electronics
- ADSL / VDSL Cards

CDSOT236-T12LC – Surface Mount TVS Diode

General Information

The CDSOT236-T12LC device provides ESD, EFT and Surge protection for high speed data ports meeting IEC 61000-4-2 (ESD), IEC 61000-4-4 (EFT) and IEC 61000-4-5 (Surge) requirements. The Transient Voltage Suppressor array offers a Working Peak Reverse Voltage of 12V and Minimum Breakdown Voltage of 13.3V.

The SOT23-6L packaged device will mount directly onto the industry standard SOT23-6L footprint. Bourns® Chip Diodes are easy to handle with standard pick and place equipment and the flat configuration minimizes roll away.



Electrical & Thermal Characteristics (@T_A = 25°C Unless Otherwise Stated)

Parameter	Symbol	CDSOT236-T12LC	Unit
Peak Pulse Power ($t_p = 8/20\mu s$) (See Fig 1)	P _{PK}	350	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I _{PPM}	11	A
Storage Temperature	T _{STG}	-55°C to 150°C	°C
Operating Temperature	T _{OPR}	-55°C to 150°C	°C
Minimum Breakdown Voltage @ 1mA	V _{BR}	13.3	V
Working Peak Voltage	V _M	12	V
Maximum Clamping Voltage @ I _P = 1 A	V _P	19	V
Maximum Clamping Voltage @ 8/20 μs @ I _{PP}	V _{PP}	28.3 V @ 11 A	V
Maximum Leakage Current @ V _{WM}	I _L	1	uA
Typical Capacitance @ 0 V, 1 MHz	C _P	3	pF

Note 1: Test between Pins 1 to 4 in both directions.

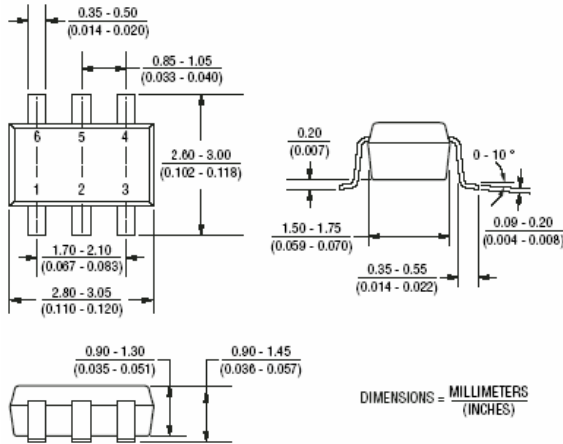
Note 2: Per IEC 61000-4-2, ESD ±25kV

CDSOT236-T12LC – Surface Mount TVS Diode

BOURNS

Mechanical Drawing

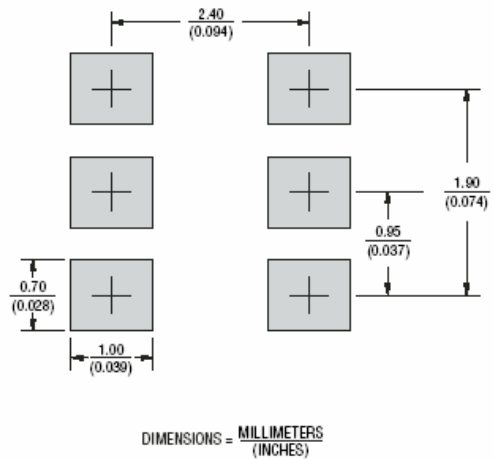
This is a molded SOT23-6L package with lead free 100% Matte Sn on the lead frame. It weighs approximately 15mg and has a flammability rating of UL 94V-0.



Part Marking

CDSOT236-T12LC.....12L

Recommended Footprint



How To Order

CD SOT236 - T 12 LC

Common Code _____

CD = Chip Diode

Package _____

SOT236 = SOT23-6 Package

Model _____

T = Transient Voltage Suppressor

Working Peak Reverse Voltage _____

12 = 12 V_{RM} (Volts)

Suffix _____

LC = Low Capacitance Bidirectional Diode



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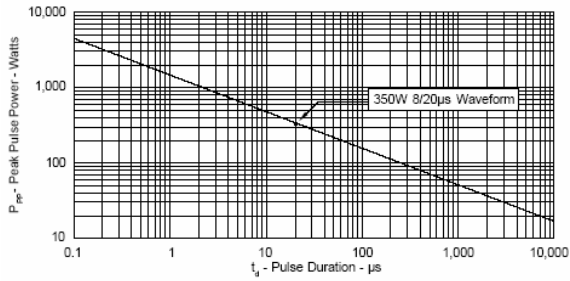
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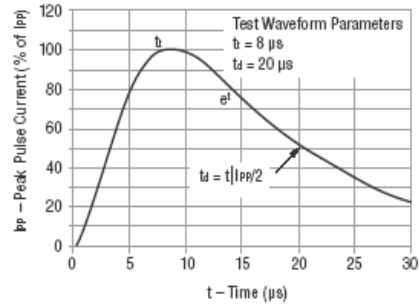
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Rating & Characteristic Curves

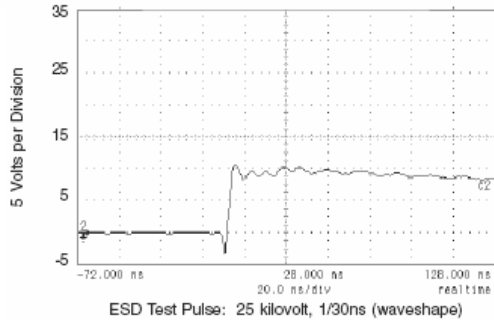
Peak Pulse Power vs Pulse Time



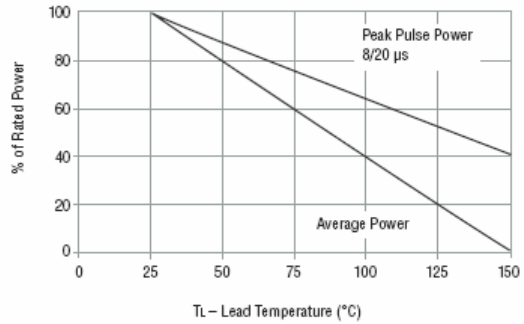
Pulse Waveform



Overshoot & Clamping Voltage

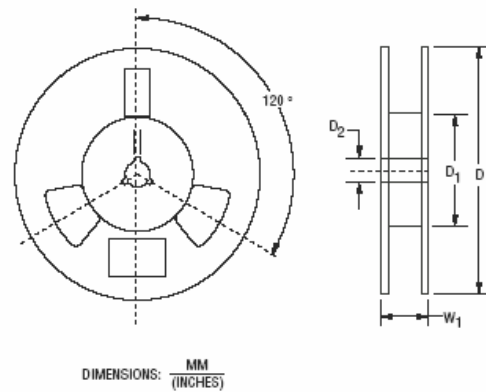
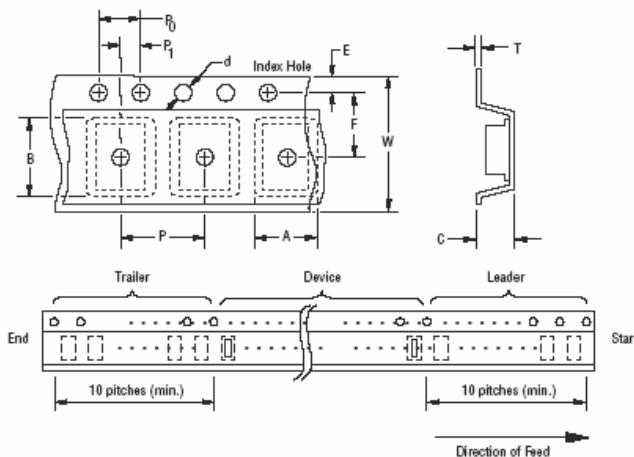


Power Derating Curve



Packaging Information

The product will be dispensed in Tape and Reel format (see diagram below).



Devices are packed in accordance with EIA standard RS-481-A