

Low capacitance TVS Flip Chip Devices

Features:

- ESD voltage in excess of 25kV
 - IEC61000-4-2(ESD): Air-15kV, Contact 8 kV
 - IEC61000-4-4 (EFT): 40A-5/50ns
- Small form factor (Flip Chip)
- Low capacitance
- Low leakage current.
- Low operating and clamping voltages
- Voltage ranges are 5V,8V,12V, 15V and 24V.

Application:

- Cellular Phones
- Notebooks
- Smart Cards
- Personal Digital Assistant (PDA)
- Peripherals

Product Description:

OnChip’s TVS0402 is a transient voltage suppression device that is designed to protect low voltage CMOS semiconductors, electronic components and sub assemblies from Transients caused by Electro Static Discharge (ESD), cable discharge events (CDE), lightning strikes and other surge induced voltages. This device offers a very low capacitance and improves the signal integrity of the bits coming off this line.

Device Characteristics:

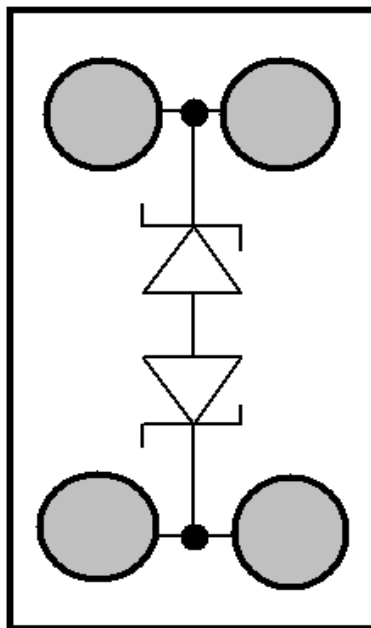
Maximum Ratings @25 °c, unless otherwise specified			
Parameter	Symbol	Value	Units
Peak Pulse Power (tp =8/20 μs)	Ppp	200	Watts
Operating Temperature	Tj	-55°c to 150°c	°c
Storage Temperature	Tstg	-55°c to 150°c	°c

Electrical Characteristics @25°C, unless otherwise specified						
Part Number	Rated Stand Off Voltage Vso (V)	Minimum break down voltage @ 1mA Vbr (V)	Maximum clamping voltage @ Ip=1A Vc (V)	Maximum clamping voltage @8/20 μs Vc	Maximum leakage current @Vso Id (μA)	Typical capacitance @0V 1MHz. C (pF)
TVS0402-05FC	5.9	6.0	11	13V@15A	10	35
TVS0402-08FC	8.0	8.5	13.2	18V@11A	1	32
TVS0402-12FC	12.0	13.3	19.8	26.9V@7.4A	1	30
TVS0402-15FC	15	16.7	25.4	34.5V @5.8A	1	25
TVS0402-24FC	24	26.7	37.2	50.6V @4A	1	20

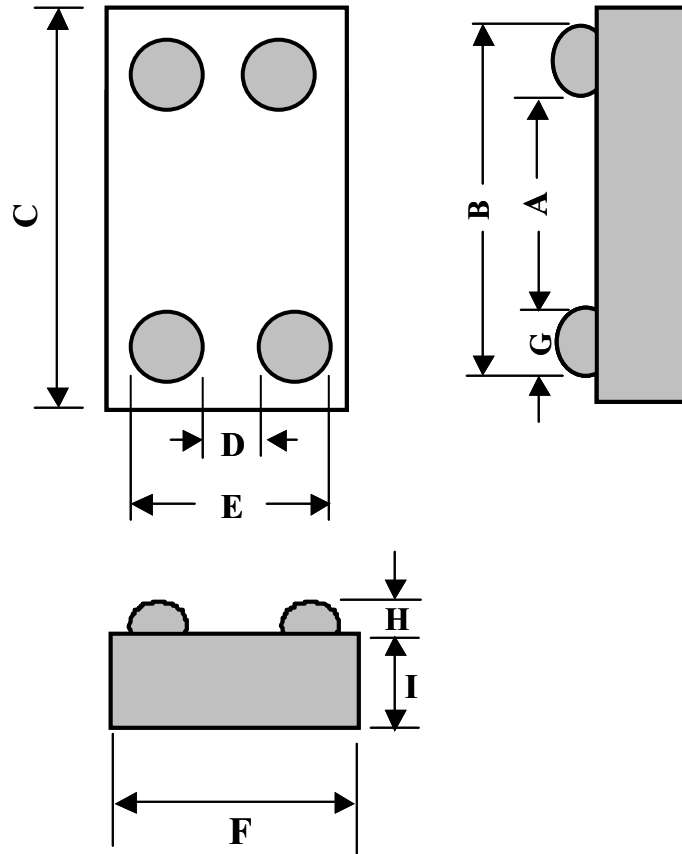
Notes:

1. All devices are bidirectional i.e. the electrical characteristics apply in both directions.

Physical Characteristics:



Package Outline and Dimensions



Dim.	Millimeters	Inches
A	0.46 Nom.	0.018 Nom
B	0.86 Nom	0.034 Nom
C	.99±0.0254	0.039 ±0.001
D	0.10 Nom	0.004 Nom.
E	0.35 Nom	0.014 Nom
F	0.483±0.0254	0.019 0 ±.001
G	0.20 Nom	0.008 Nom
H	0.127 max	0.005 max
I	0.406 Nom	0.016 Nom