

Features

- IEC61000-4-2 (ESD) +/-30kV(air)
+/-30KV(contact)
- IEC61000-4-5 (Lightning) 60A (8/20us)
- 500 Watts Peak Pulse Power per(tp=8/20us)
- Working voltages : 5V
- Low leakage current

Description

The TS0551LBX is designed for applications requiring transient over voltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers ,printers, business machines , communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

The TS0551LBX has been specifically designed to protect sensitive components which are connected to power data and transmission lines from over voltage caused by ESD (electrostatic discharge), CDE(Cable Discharge Events) , and EFT (electrical fast transients).

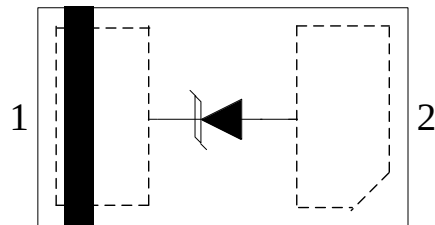
Applications

- Cellular Handsets
- Portable Electronics
- Computers and Peripheral

Mechanical Characteristics

- DFN1006-2L package
- Packaging: Tape and Reel
- Reel size: 7 inch
- ROHS

Pin Configuration

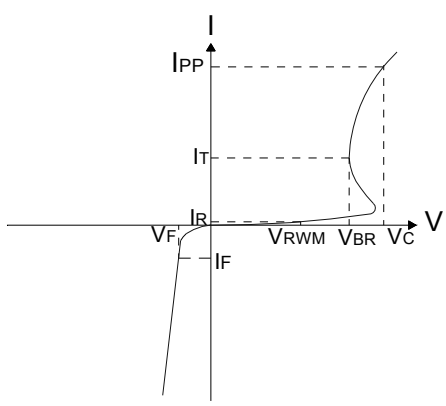


DFN1006-2L
(Top View)

Absolute Maximum Rating

Symbol	Parameter	Value	Units
I_{PP}	Peak Pulse Current (8/20 μ s)	60	A
P_{PK}	Peak Pulse Power (8/20 μ s)	960	W
V_{ESD}	ESD per IEC61000-4-2 (Air) ESD per IEC61000-4-2 (Contact)	± 30 ± 30	kV
T_{OPT}	Operating Temperature	-55/+125	°C
T_{STG}	Storage Temperature	-55/+150	°C

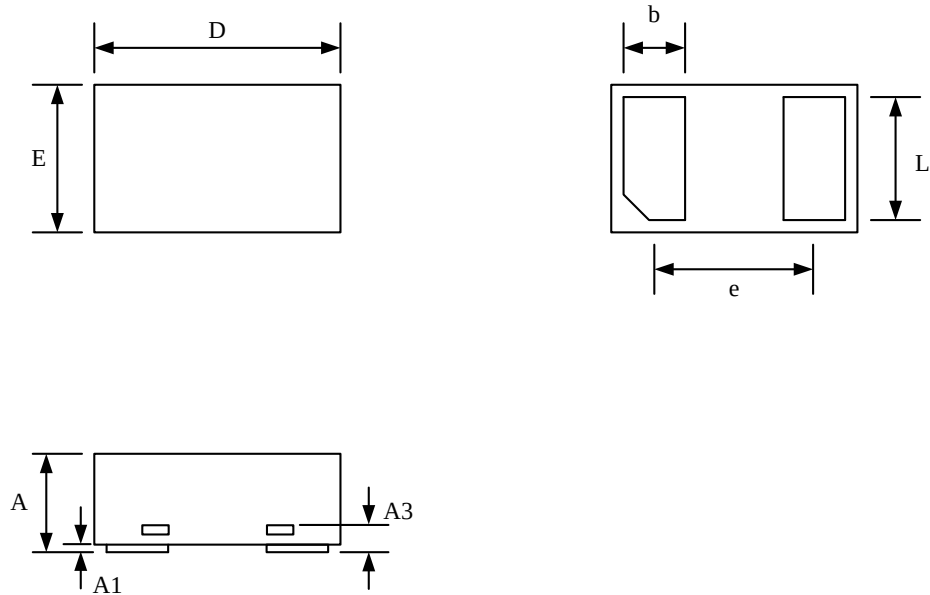
Electrical Characteristics (T = 25°C)

Symbol	Parameter	Diagram
V_{RWM}	Nominal Reverse Working Voltage	
I_R	Reverse Leakage Current @ V_{RWM}	
V_{BR}	Reverse Breakdown Voltage @ I_T	
I_T	Test Current for Reverse Breakdown	
V_C	Clamping Voltage @ I_{PP}	
I_{PP}	Maximum Peak Pulse Current	
C_{ESD}	Parasitic Capacitance	
I_F	Forward Current	
V_F	Forward Voltage @ I_F	

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}				5.0	V
I_R	$V_{RWM} = 5V$, T = 25°C Between I/O and GND		0.1	1.0	μ A
V_{BR}	$I_T = 1mA$ Between I/O and GND	5.5		8.0	V
V_C	$I_{PP} = 20A$, $t_p = 8/20\mu s$ Between I/O and GND		7.8	13	V
V_C	$I_{PP} = 60A$, $t_p = 8/20\mu s$ Between I/O and GND		11.2	16	V
C_{ESD}	$V_R = 0V$, f = 1MHz Between I/O and I/O		150		pF

Package Outline

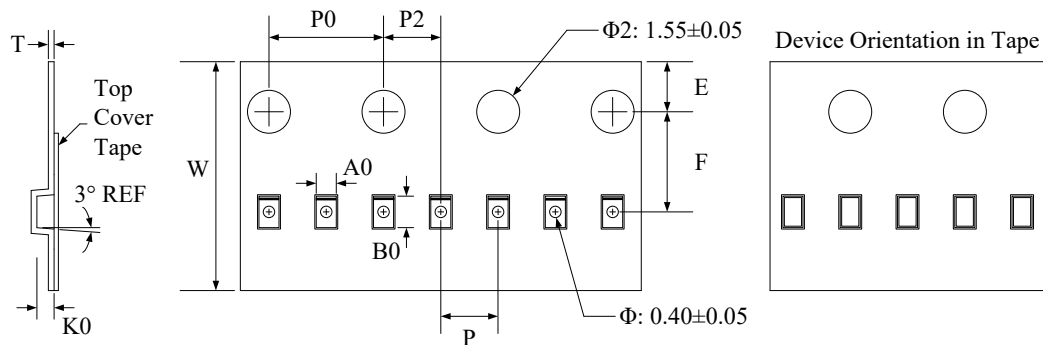
- DFN1006-2L package
- 2 leads, very small package
- MSL-1



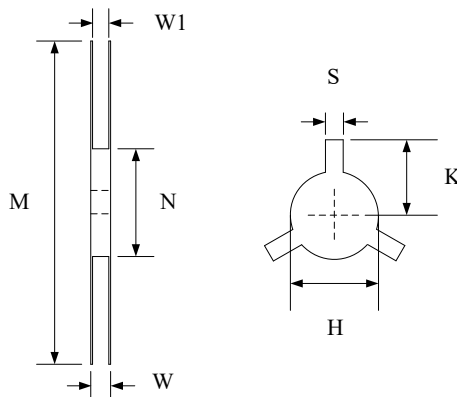
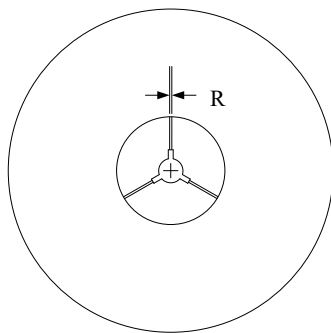
Package Dimensions (Controlling dimensions are in millimeters)

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Minimum	Maximum	Minimum	Maximum
A	0.400	0.550	0.016	0.022
A1	0.000	0.050	0.000	0.002
A3	0.125 REF		0.005 REF	
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
b	0.200	0.300	0.008	0.012
e	0.650 BSC		0.026 BSC	
L	0.450	0.550	0.018	0.022

Tape and Reel Specification



Symbol	W	A0	B0	K0	E	F	P	P0	P2	T
Dimensions (mm)	8.00±0.1	0.7±0.05	1.15±0.05	0.55±0.05	1.75±0.1	3.5±0.05	2.0±0.1	4.0±0.1	2.0±0.05	0.2±0.05



Symbol	Reel Size	M	N	W	W1	H	S	K	R
Dimensions (mm)	Φ178	178.0±1.0	60.0±1.0	11.5±0.5	9.0±0.5	13.0±0.5	2.0±0.1	11.0±0.2	1.0±0.05

Marking Codes



Note:

- (1) "F" is part number, fixed.
- (2) "X" is the identification number.

Ordering Information

Part Number	Working Voltage	Quantity Per Reel	Reel Size
TS0551LBX	5V	10,000	7 Inch