

Features

- Ultra low leakage: nA level
- Operating voltage: 24V
- Low Capacitance: 3pF
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 17\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

Ordering Information

Part Number	Qty per Reel	Reel Size
ESD24VB3-1006	10000	7"

Mechanical Characteristics

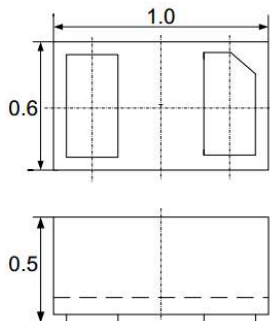
- DFN1006-2L package
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0



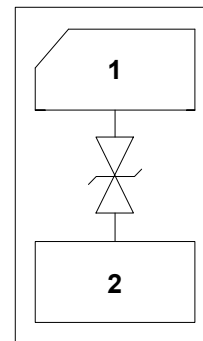
Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Dimensions



Pin Configuration

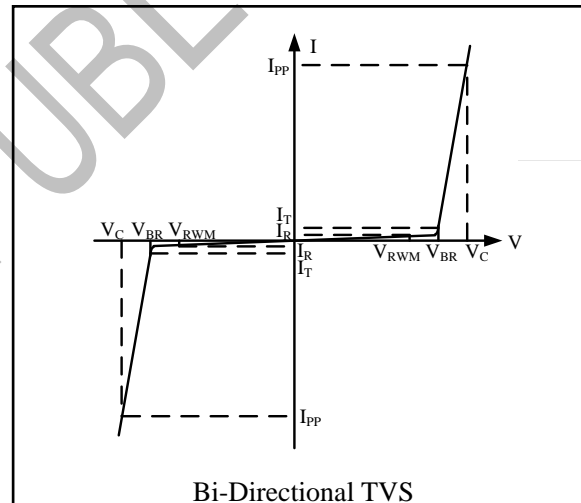


Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	VESD	± 25	kV
ESD per IEC 61000-4-2 (Contact)		± 17	
Operating Temperature Range	TJ	-55 to +155	°C
Storage Temperature Range	Tstg	-40 to +125	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Symbol	Parameter
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
V _R	Reverse Voltage
f	Small Signal Frequency



Symbol	Test Condition	Minimum	Typical	Maximum	Units
V _{RWM}				24.0	V
I _R	V _{RWM} = 24V, T = 25°C Between I/O and I/O		0.01	0.1	μA
V _{BR}	I _T = 1mA Between I/O and I/O	26			V
V _C	I _{PP} = 1A, t _p = 8/20μs Between I/O and I/O		40		V
C _{ESD}	V _R = 0V, f = 1MHz Between I/O and I/O		3	5	pF

Characteristic Curves

Fig1. 8/20 μ s Pulse Waveform

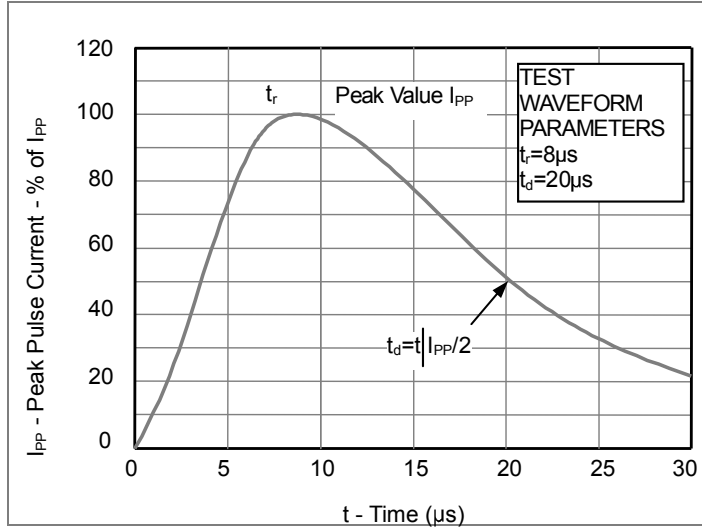


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

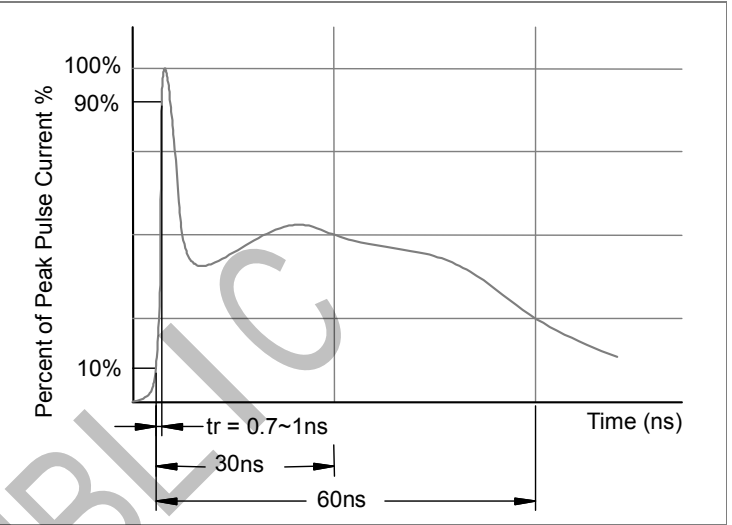
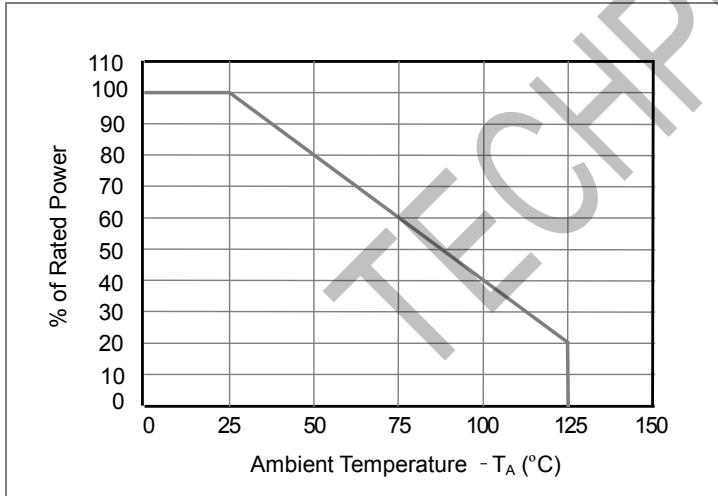
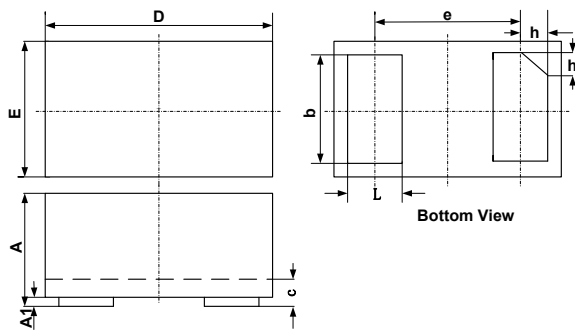


Fig3. Power Derating Curve

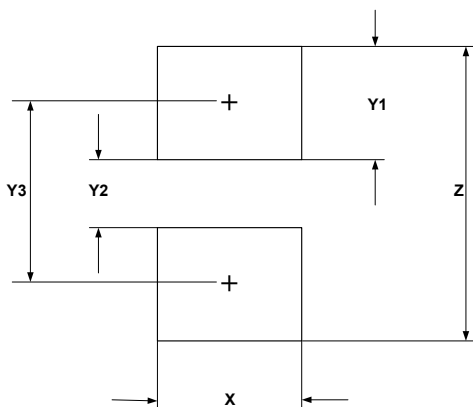


Outline Drawing - DFN1006-2



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007

Land Pattern - DFN1006-2



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.60	0.024
Y1	0.50	0.020
Y2	0.30	0.012
Y3	0.80	0.032
Z	1.30	0.052

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