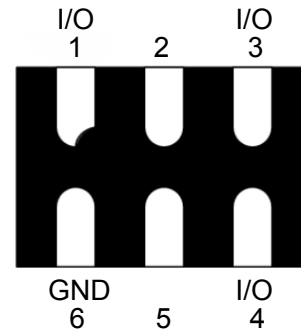


Features

- Ultra low leakage: nA level
- Operating voltage: 5.0V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 20\text{kV}$
 - Contact discharge: $\pm 15\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

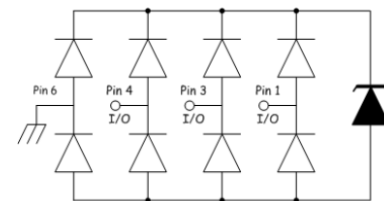
Dimensions DFN1510



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

Pin Configuration



Mechanical Characteristics

- Package: DFN1510
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 3,000pcs
- Reel Size: 7 inch
- Device Marking: 5N3

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μ s)	P _{pp}	100	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 20	Kv
ESD per IEC 61000-4-2 (Contact)		± 15	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	6.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)			16.5	V
Clamping Voltage	V_C	$I_{PP} = 3\text{A}$ (8 x 20 μs pulse)			30	V
Junction Capacitance	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$		0.5		pF

Characteristic Curves

Fig1. 8/20 μs Pulse Waveform



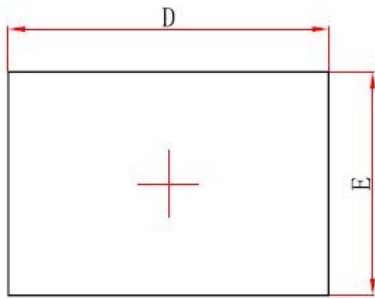
Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



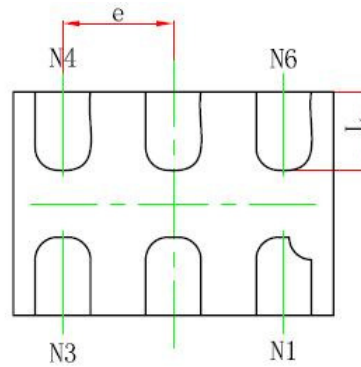
Fig3. Power Derating Curve



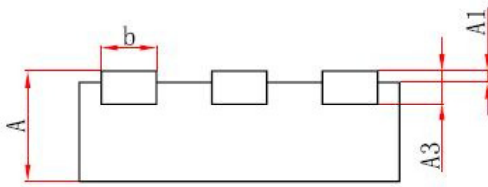
DFN1510 PACKAGE OUTLINE & DIMENSIONS



Top View



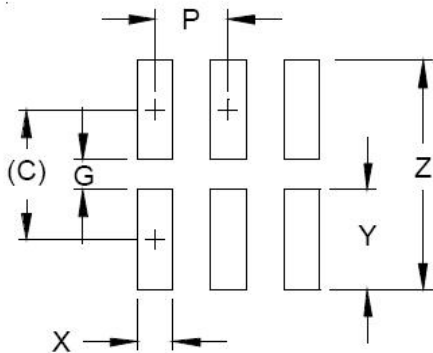
Bottom View



Side View

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450/0.550	0.550/0.650	0.018/0.022	0.022/0.026
A1	0.000	0.050	0.000	0.002
A3	0.150REF.		0.006REF.	
D	1.350	1.550	0.053	0.061
E	0.900	1.100	0.035	0.043
D1	—	—	—	—
E1	—	—	—	—
k	—		—	
b	0.180	0.300	0.007	0.012
e	0.500TYP.		0.020TYP.	
L	0.250	0.450	0.010	0.018

* SOLDERING FOOTPRINT



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.034)	(0.875)
G	.008	0.20
P	.020	0.50
X	.010	0.25
Y	.027	0.675
Z	.061	1.55