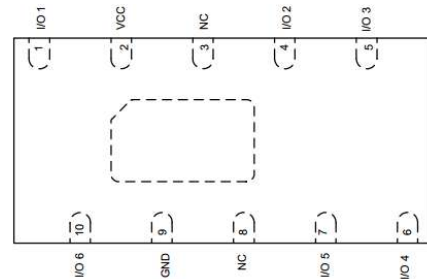


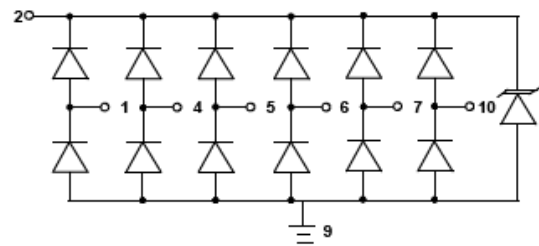
### Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 15\text{kV}$   
Contact discharge:  $\pm 8\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 5A (8/20 $\mu\text{s}$ )
- RoHS Compliant

### Dimensions DFN4120-10



### Pin Configuration



### Applications

- USB 2.0 ,3.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

### Mechanical Characteristics

- Package: DFN4120 –10
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7 inch

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	Ppp	100	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 15$	Kv
ESD per IEC 61000-4-2 (Contact)		$\pm 8$	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

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

Part Number	Device Marking	V <sub>RWM</sub> (V)	V <sub>BR</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> @1A	V <sub>C</sub>		I <sub>R</sub> μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
ULC0568K	KC568	5	6	1	15	20	5	1	0.30

## Characteristic Curves

Fig1. 8/20μs Pulse Waveform



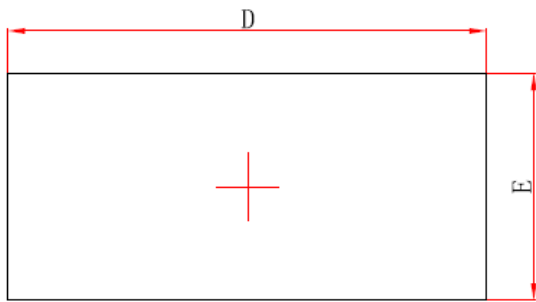
Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)



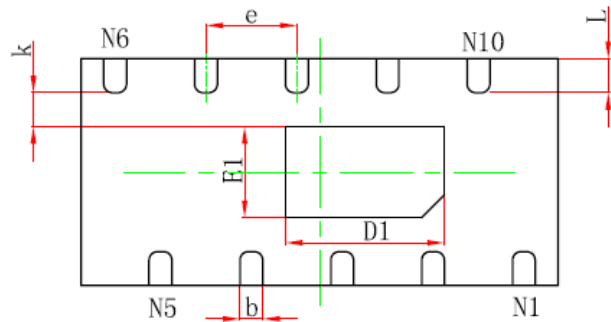
Fig3. Power Derating Curve



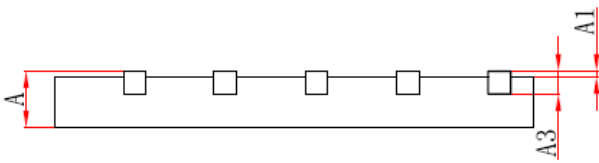
## DFN4120P10 PACKAGE OUTLINE & DIMENSIONS



Top View



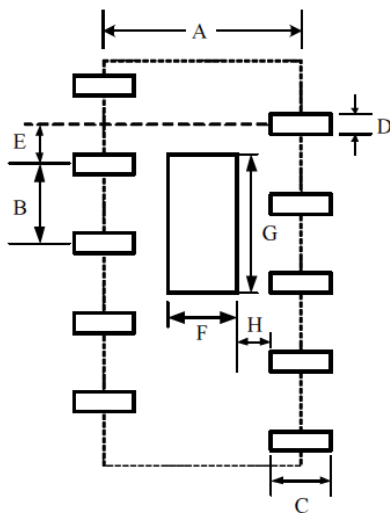
Bottom View



Side View

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.000	0.050	0.000	0.002
A3	0.152REF.		0.006REF.	
D	4.024	4.176	0.158	0.164
E	1.924	2.076	0.076	0.082
D1	1.300	1.500	0.051	0.059
E1	0.700	0.900	0.028	0.035
k	0.200MIN		0.008MIN	
b	0.150	0.250	0.006	0.010
e	0.800TYP.		0.031TYP.	
L	0.224	0.376	0.009	0.015

### \* SOLDERING FOOTPRINT



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.924	2.076	0.076	0.082
B	0.800TYP.		0.031TYP.	
C	0.600TYP.		0.023TYP.	
D	0.150	0.250	0.006	0.010
E	0.400TYP.		0.015TYP.	
F	0.700	0.900	0.028	0.035
G	1.300	1.500	0.051	0.059
H	0.200MIN.		0.008MIN	