

Features

- 250 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Protects One I/O Line (Bidirection)
- Low Clamping Voltage
- Working Voltages : 3.3V
- Low Leakage Current
- IEC61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

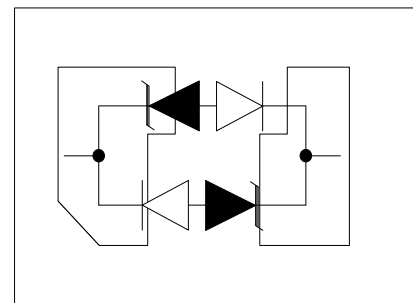
Dimensions DFN1410P2



Applications

- Cellular Handsets and Accessories
- High Speed I/O Lines
- 10/100/1000 Ethernet Protection
- Peripherals
- Personal Digital Assistants (PDA)
- Servers, Notebook, and Desktop PC

Pin Configuration



Mechanical Characteristics

- DFN1410P2 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 1.5 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	250	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
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)

Part Number	Device Marking	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
ULC33CFN	R3	3.3	3.5	1	6	30	13	0.5	0.4

◆ Note 1 -- I_R : <0.5uA, T_C = 25°C, I_R : <1.0uA, T_C = 125°C

◆ Note 2 -- 0.4pF (max.), V_R=2.5V, f=1MHz.

TYPIC CHARACTERISTICS

Figure 1. 8 x 20 μs Waveform

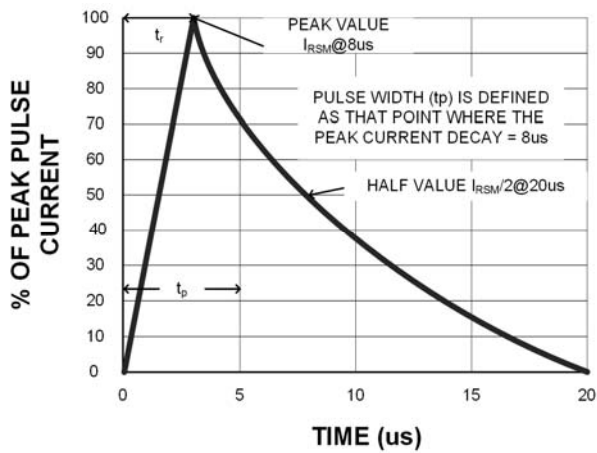


Figure 2. Power Derating Curve

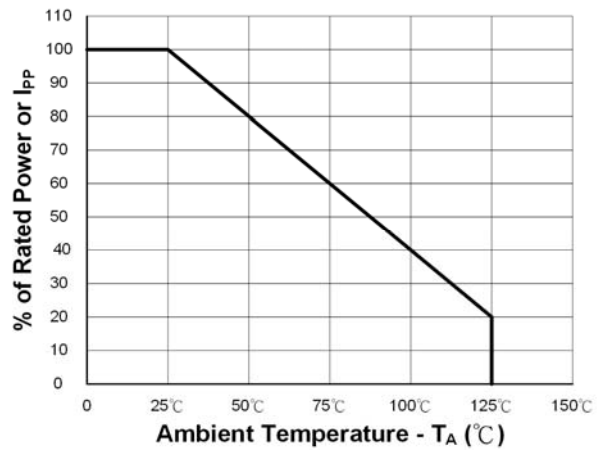
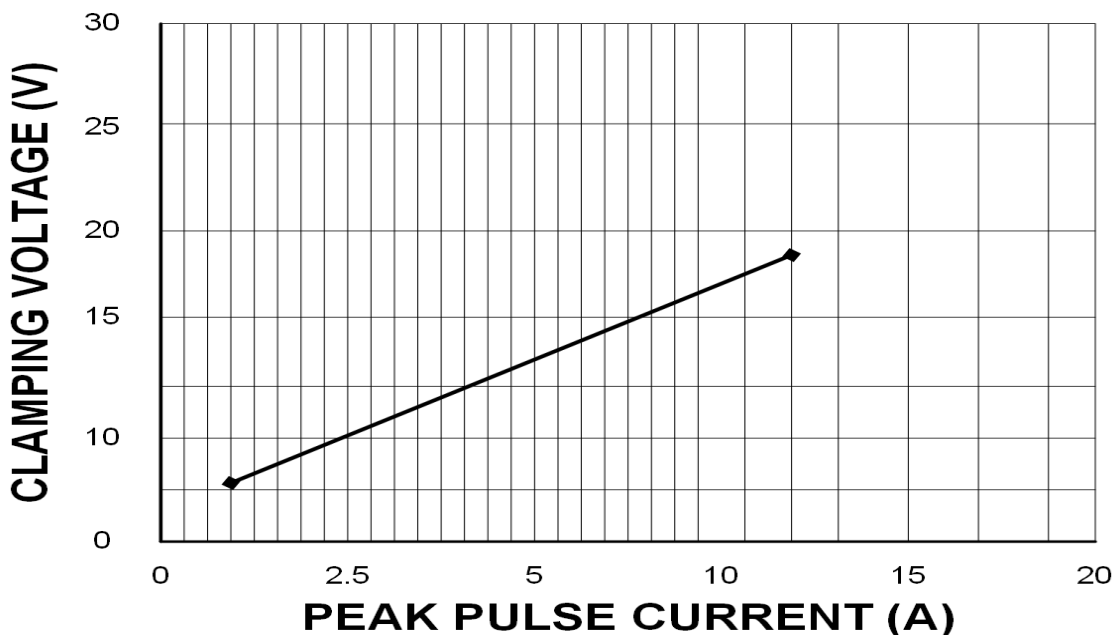


Figure 3. Clamping Voltage vs. Peak Pulse Current (tp=8/20us)



TYPIC CHARACTERISTICS

Figure 4. Typical Capacitance vs. Reverse Voltage

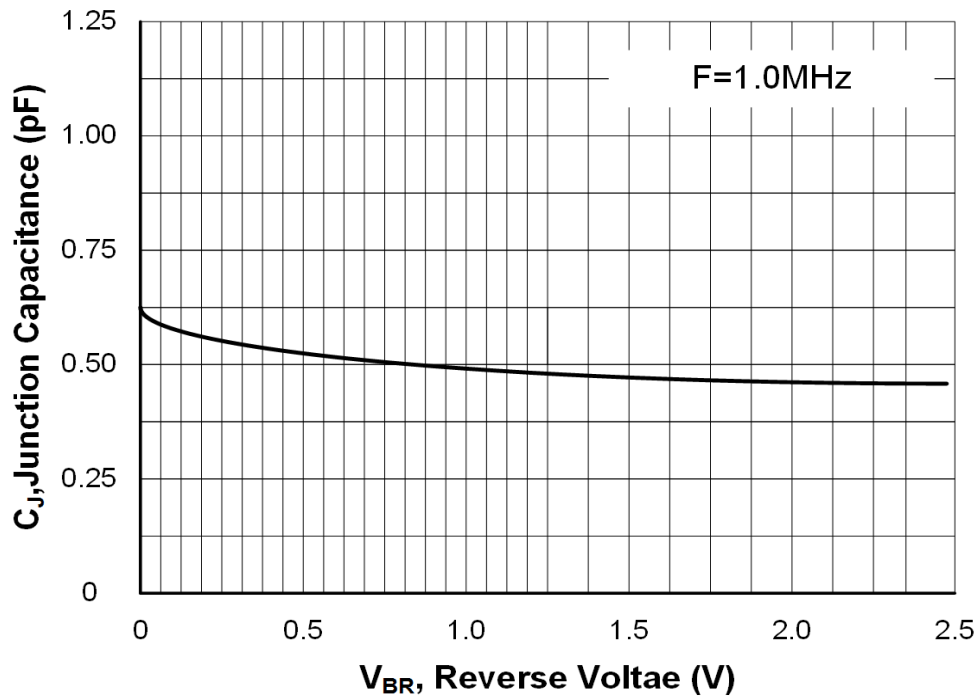
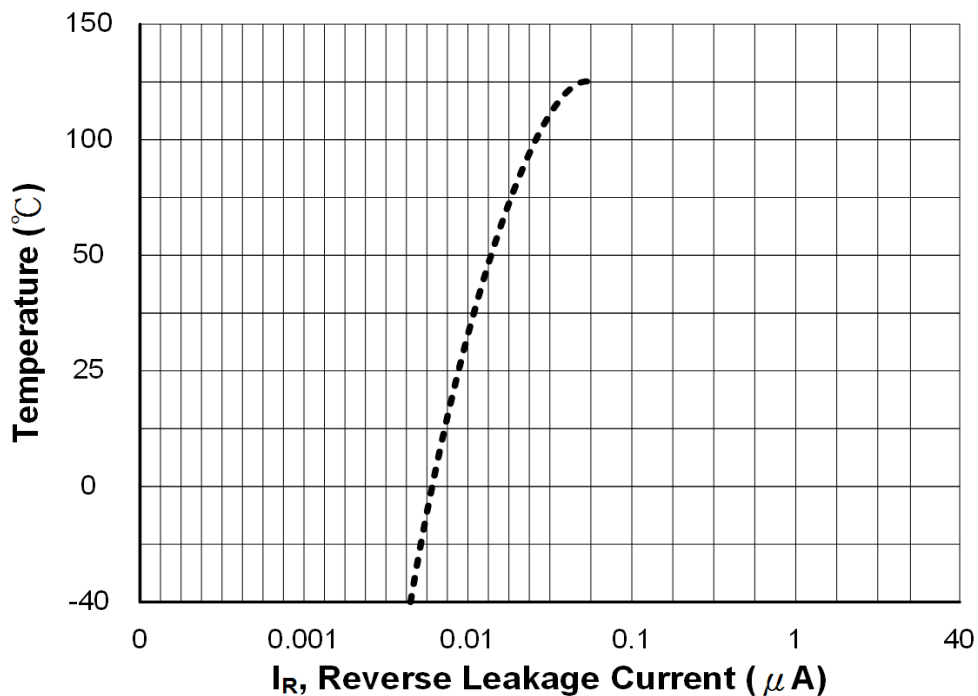
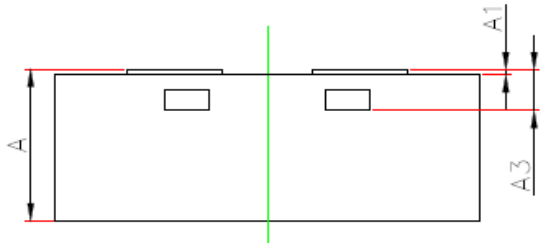
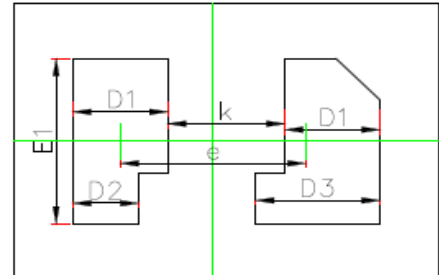
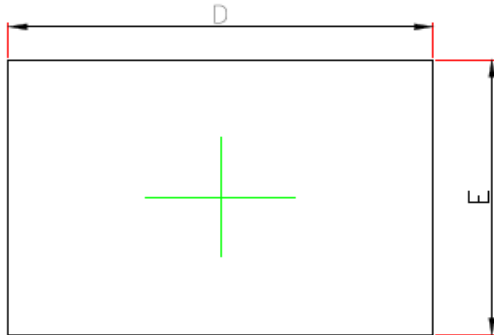


Figure 5. Typical Reverse Leakage vs. Temperature



DFN1410P2 PACKAGE OUTLINE & DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.500	0.600	0.020	0.024
A1	0.000	0.050	0.000	0.002
A3	0.152REF.		0.006REF.	
D	1.400	1.500	0.055	0.059
E	0.950	1.050	0.037	0.041
D1	0.225	0.425	0.009	0.017
E1	0.500	0.700	0.020	0.028
k	0.400Ref.		0.016Ref.	
D2	0.125	0.325	0.005	0.013
e	0.634TYP.		0.025TYP.	
D3	0.325	0.525	0.013	0.021