

1. Features

- Ultra low capacitance: 0.3pF typical(I/O to I/O)
- Ultra low leakage: nA level
- Low operating voltage: 5V
- Low clamping voltage
- Up to 4 date lines and one power line protects
- ROHS Compliant
- Complies with following standards
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kv}$
 - Contact discharge: $\pm 20\text{kv}$
 - IEC 61000-4-4(EFT)40A(5/50ns)
 - IEC 61000-4-5(Lighning): 4A(8/20 μs)

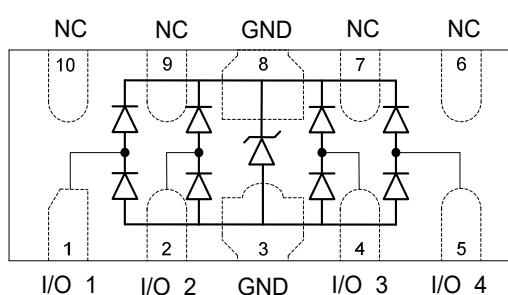
2. Applications

- Serial ATA
- PCI Express
- MDDI Ports
- Display Ports
- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)

3. Mechanical Data

- DFN2510 package
- Flammability Rating: UL 94V-0
- Terminal: Matte tin plated
- Packaging: Tape and Reel
- High temperature soldering
guaranteed:260°C/10s
- Reel size: 7 inch

4. Pinning information



DFN2510-10



5. Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Peak Pulse Power (8/20μs)	P_{PP}	80	W
Peak Pulse Current (8/20μs)	I_{PP}	4	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	± 25	kV
ESD per IEC 61000-4-2 (Contact)		± 20	kV
Junction Temperature	T_{OPT}	-55 to 125	°C
Storage Temperature	T_{STG}	-55 to 150	°C



6. Electrical Characteristics ($T_{amb}=25^{\circ}C$)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V_{RWM}	Any I/O pin to ground			5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$, Any I/O pin to ground	7	8	9.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5V$, Any I/O pin to ground			0.1	μA
Clamping Voltage	V_C	$I_{PP}=1A$, $t_p=8/20\mu s$, Any I/O pin to ground			9	V
		$I_{PP}=4A$, $t_p=8/20\mu s$, Any I/O pin to ground			16	V
Junction Capacitance	C_J	$V_R=0V$, $f=1MHz$, Between I/O pins		0.3	0.4	pF
		$V_R=0V$, $f=1MHz$, Between I/O pin to ground			0.8	pF



7. Typical characteristic

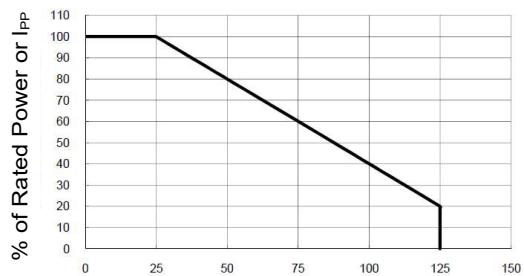


Figure 1: Power Derating Curve

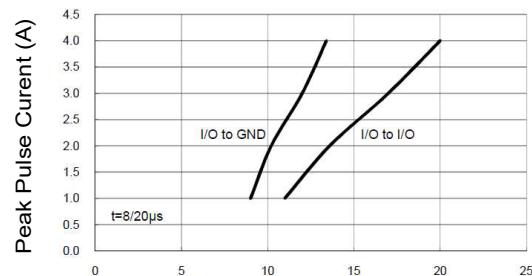


Figure 2: Clamping Voltage vs Peak Pulse Current

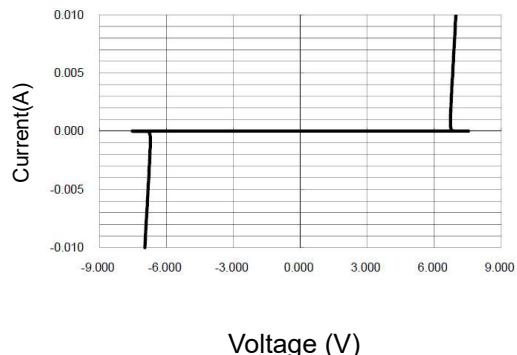


Figure 3: Voltage Sweeping of I/O to I/O

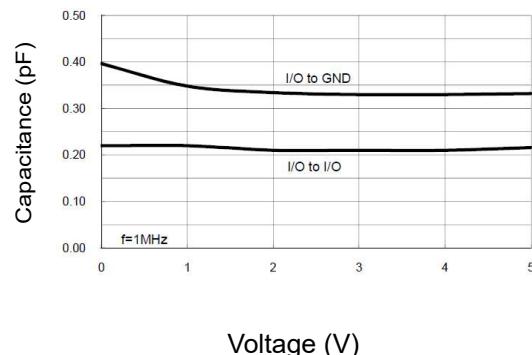
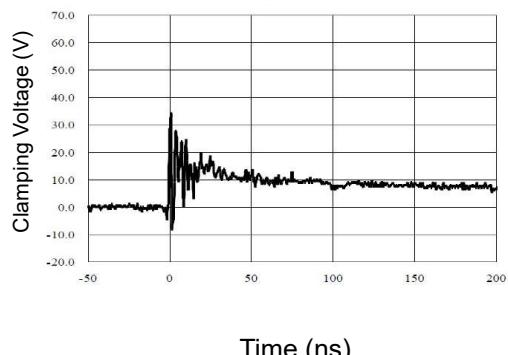
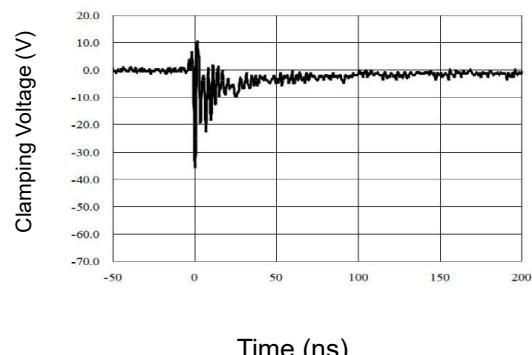
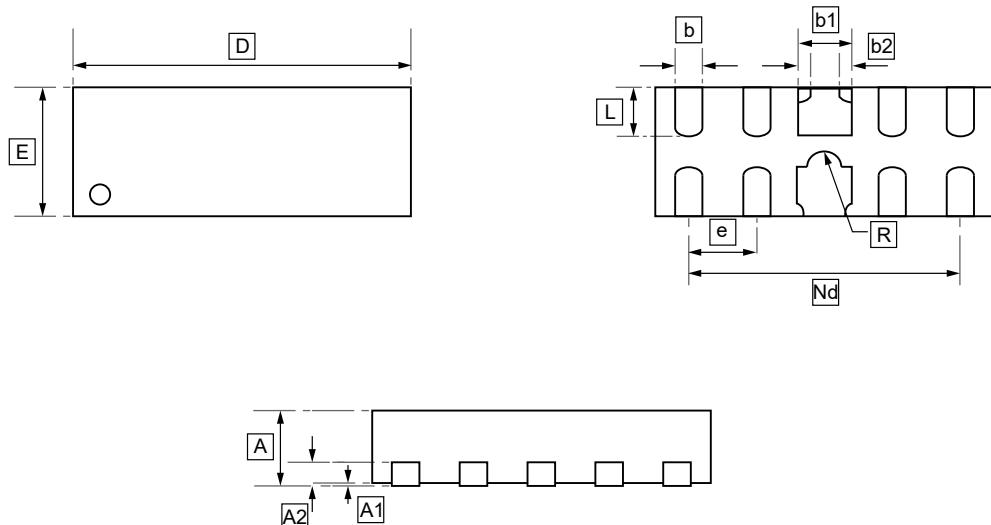


Figure 4: CVoltage vs Capacitance

Figure 5: ESD Clamping of I/O to GND
(+8kV Contact per IEC 61000-4-2)Figure 6: ESD Clamping of I/O to GND
(-8kV Contact per IEC 61000-4-2)



8.DFN2510-10 Package Outline Dimensions

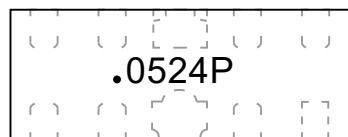


DIMENSIONS (mm are the original dimensions)

Symbol	D	E	b1	b2	b	L	Nd	e	R	A	A1	A2
Min	2.45	0.95	0.35	0.15	0.10	0.33	BSC	0.50	0.125	0.45	0.152	-
Max	2.55	1.05	0.45	0.25	0.20	0.43		BSC	BSC	0.55	REF	0.05



9.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW ESD0524P	DFN2510-10	3000	Tape and reel



10. Disclaimer

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