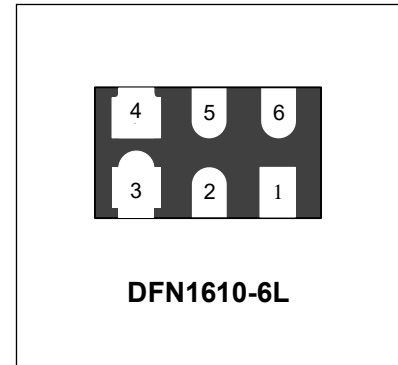




Features

- Solid-state silicon-avalanche technology
- Low operating and clamping voltage
- Up to four I/O Lines of Protection
- Ultra low capacitance: 0.25pF typical(I/O to I/O)
- Low Leakage
- Low operating voltage:5V
- Flow-Through design



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 25\text{kV}$ (air), $\pm 20\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)

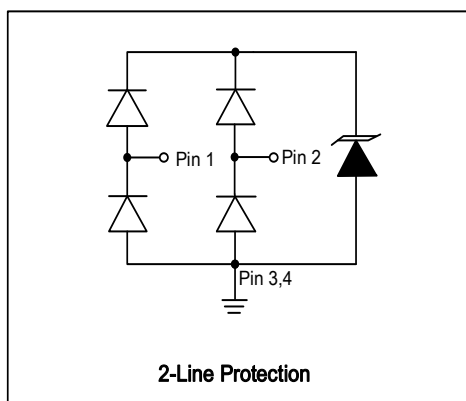
Mechanical Characteristics

- DFN1610-6L package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel
- RoHS Compliant

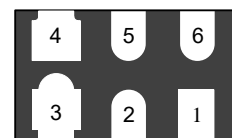
Applications

- Digital Visual Interface(DVI)
- MDDI Ports
- Display Port TM Interface
- PCI Express
- High Definition Multi-Media Interface(HDMI)
- HDMI Interfaces

Circuit Diagram



Schematic & PIN Configuration

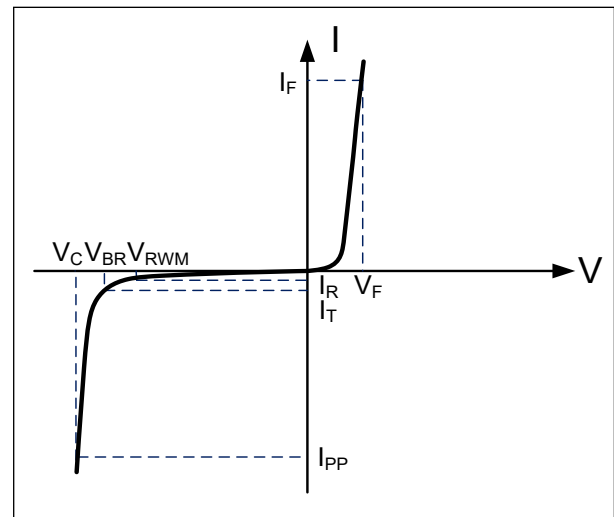


Pin	Identificaion
1,2	Input line
5,6	Output Lines (No Internal Connection)
3,4	Ground

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	5	A
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F

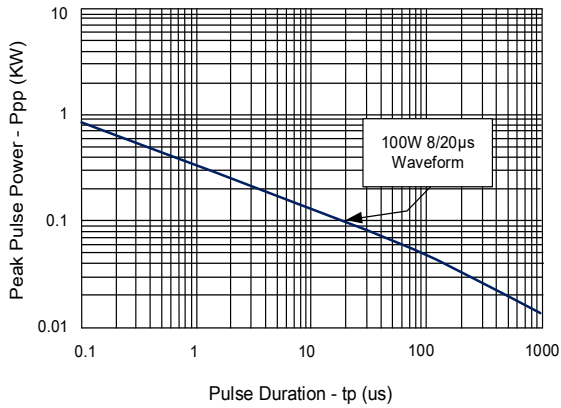


Electrical Characteristics

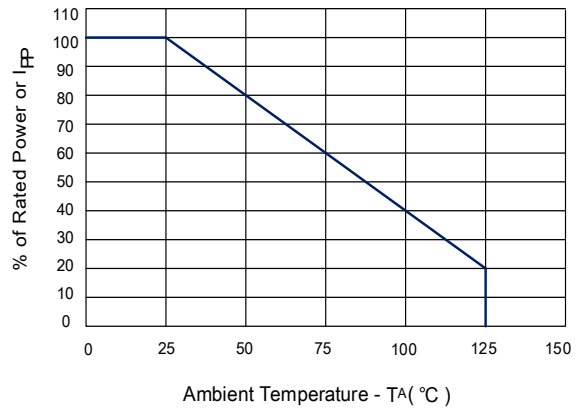
DW05-2R2P-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}	Any I/O pin to ground			5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$ Any I/O pin to ground	5.6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V, T=25°C$ Any I/O pin to ground			0.5	μA
Clamping Voltage	V_C	$I_{pp}=5A, t_p=8/20\mu s$ Any I/O pin to ground			15	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ I/O pin to GND		0.6	0.8	pF
		$V_R = 0V, f = 1MHz$ Between I/O pins		0.25	0.4	pF

Typical Characteristics

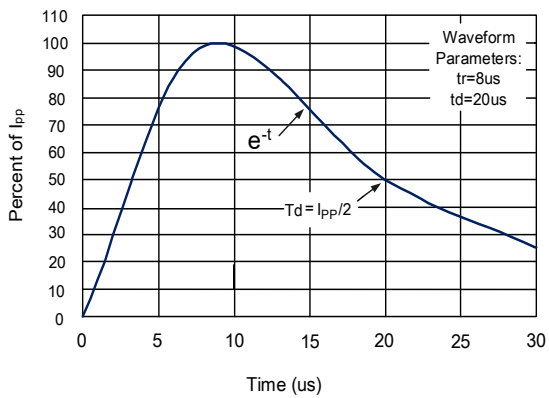
Non-Repetitive Peak Pulse Power vs. Pulse Time



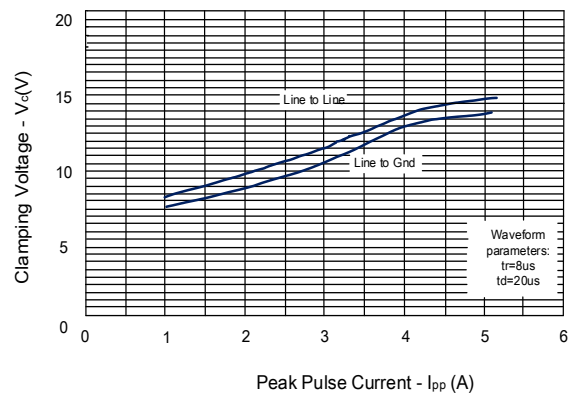
Power Derating curve



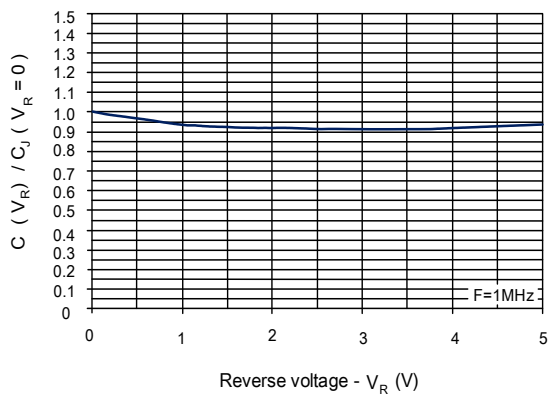
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current

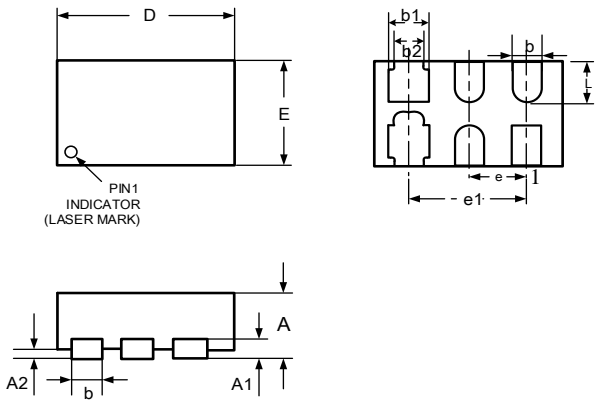
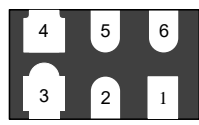
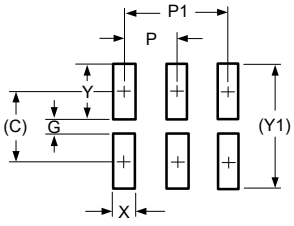


Normalized Capacitance vs. Reverse Voltage





Outline Drawing – DFN-6L

 <p>NOTES: CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).</p>	 <table border="1"> <thead> <tr> <th colspan="5">DIMENSIONS</th> </tr> <tr> <th rowspan="2">DIM</th> <th colspan="2">MILLIMETERS</th> <th colspan="2">INCHES</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>1.55</td> <td>1.65</td> <td>0.061</td> <td>0.065</td> </tr> <tr> <td>E</td> <td>0.95</td> <td>1.05</td> <td>0.037</td> <td>0.041</td> </tr> <tr> <td>L</td> <td>0.33</td> <td>0.43</td> <td>0.013</td> <td>0.017</td> </tr> <tr> <td>b</td> <td>0.15</td> <td>0.25</td> <td>0.006</td> <td>0.010</td> </tr> <tr> <td>b1</td> <td>0.35</td> <td>0.45</td> <td>0.014</td> <td>0.018</td> </tr> <tr> <td>b2</td> <td>0.25</td> <td>0.35</td> <td>0.010</td> <td>0.014</td> </tr> <tr> <td>e</td> <td colspan="2">0.50BSC</td> <td colspan="2">0.020BSC</td> </tr> <tr> <td>e1</td> <td colspan="2">1.00BSC</td> <td colspan="2">0.039BSC</td> </tr> <tr> <td>A</td> <td>0.45</td> <td>0.55</td> <td>0.018</td> <td>0.022</td> </tr> <tr> <td>A1</td> <td colspan="2">0.15REF</td> <td colspan="2">0.006REF</td> </tr> <tr> <td>A2</td> <td>0.00</td> <td>0.05</td> <td>0.000</td> <td>0.002</td> </tr> </tbody> </table>	DIMENSIONS					DIM	MILLIMETERS		INCHES		MIN	MAX	MIN	MAX	D	1.55	1.65	0.061	0.065	E	0.95	1.05	0.037	0.041	L	0.33	0.43	0.013	0.017	b	0.15	0.25	0.006	0.010	b1	0.35	0.45	0.014	0.018	b2	0.25	0.35	0.010	0.014	e	0.50BSC		0.020BSC		e1	1.00BSC		0.039BSC		A	0.45	0.55	0.018	0.022	A1	0.15REF		0.006REF		A2	0.00	0.05	0.000	0.002
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Marking Codes

Part Number	DW05-2R2P-S	Marking Code	2R2P
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Package Information

Qty: 3k/Reel