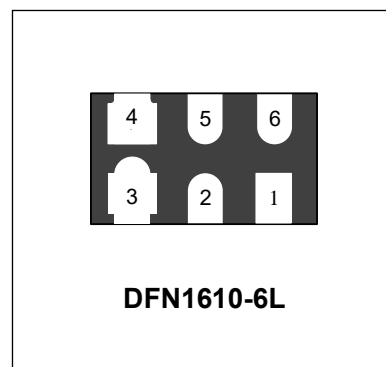


Features

- 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)

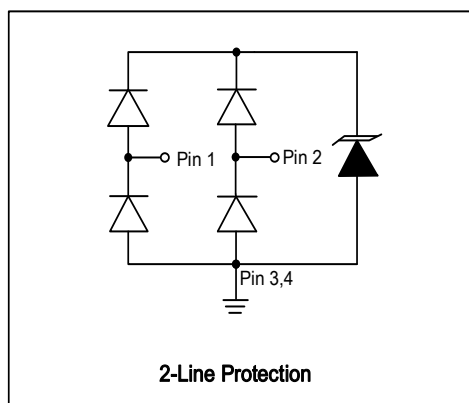
Mechanical Characteristics

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

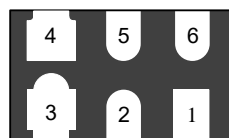
Applications

- 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

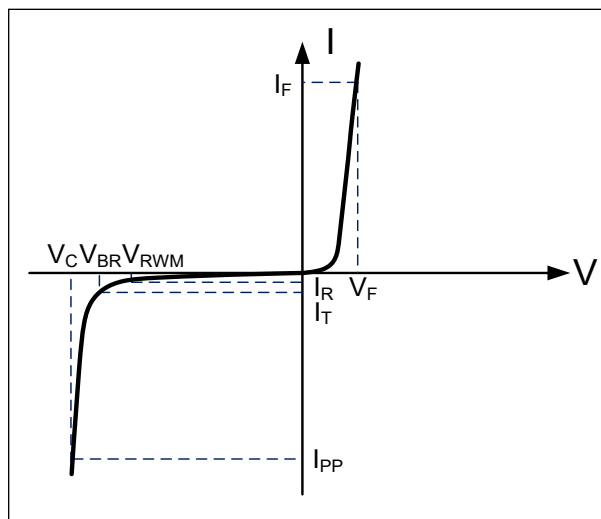


Pin	Identificaion
1,2	Input line
5,6	Output Lines (No Internal Connection)
3,4	Ground

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

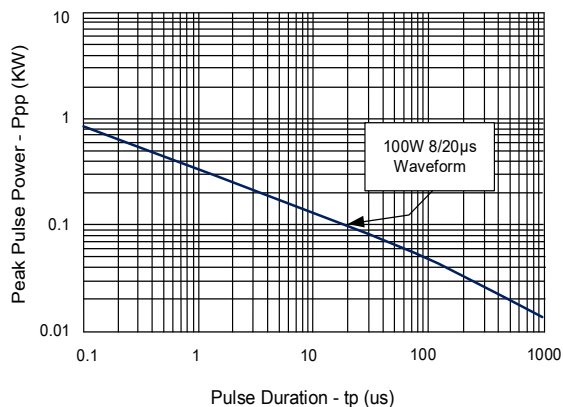


Electrical Characteristics

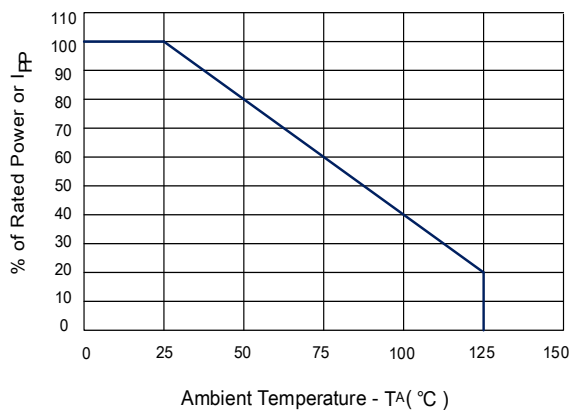
DW05-2R2P-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}	Any I/O pin to ground			5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$ Any I/O pin to ground	5.6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$, $T = 25^\circ C$ Any I/O pin to ground			0.5	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

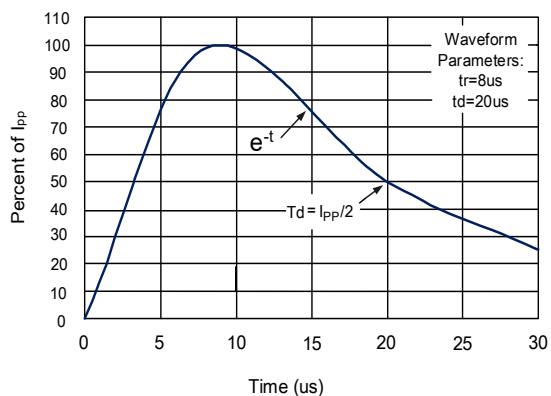
Non-Repetitive Peak Pulse Power vs. Pulse Time



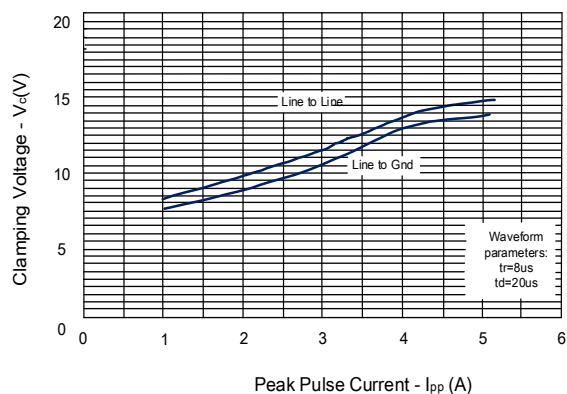
Power Derating curve



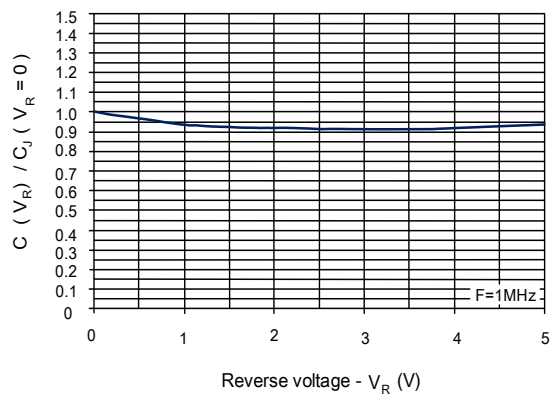
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



Normalized Capacitance vs. Reverse Voltage





Outline Drawing – DFN-6L

NOTES:
CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).

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

DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	0.024	0.60
G	0.004	0.10
P	0.020	0.50
P1	0.039	1.0
X	0.012	0.30
Y	0.020	0.50
Y1	0.063	1.60

NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY.

CONSULT YOUR MANUFACTURING TO ENSURE YOUR COMPANYS
MANUFACTURING GUIDELINES ARE MET.

Marking Codes

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

Qty: 3k/Reel