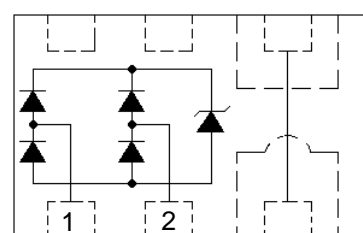


Features

- 80 Watts Peak Pulse Power ($T_p = 8/20\mu s$)
- Bi-Directional Configuration
- Snap-Back Technology
- Low Clamping Voltage
- Low Leakage Current
- Ultra Low Capacitance (0.40pF typical)
- ESD Protection for High-Speed Data Lines to:
 IEC 61000-4-2 $\pm 16KV$ Contact, $\pm 20KV$ Air
 IEC 61000-4-4 (EFT) 40A (5/50ns)
 IEC 61000-4-5 (Lightning) 10A (8/20 μs)
- RoHS Compliant



DFN1610-6L



Schematic Diagram

Applications

- USB 3.0, USB 2.0, MHL
- HDMI 2.0, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- 1G/2.5G/5G/10G Ethernet

Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu S$)	P_{PP}	80	W
Peak Pulse Current ($T_P=8/20\mu S$)	I_{PP}	10	A
Junction Temperature	T_J	-55 To +125	$^\circ C$
Storage Temperature	T_{STG}	-55 To +150	$^\circ C$

Electrical Characteristics ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=10\mu A$	5	6.5	15	V
Reverse Leakage Current	I_R	$V_R=3.3V$	-	0.01	0.1	μA
Trigger Voltage	V_T	$I_{PP}=10A, T_P=8/20\mu S$	-	9.5	-	V
Clamping Voltage	V_C	$I_{PP}=10A, T_P=8/20\mu S$	-	8.0	-	V
Dynamic Resistance	R_{dyn}	$I_T=0$ to 30A, $T_P=TLP$	-	0.25	-	Ω
Junction Capacitance	C_J	$V_R=0V, f=1MHz, I/O$ to GND	-	0.4	0.50	pF

Typical Characteristic Curves

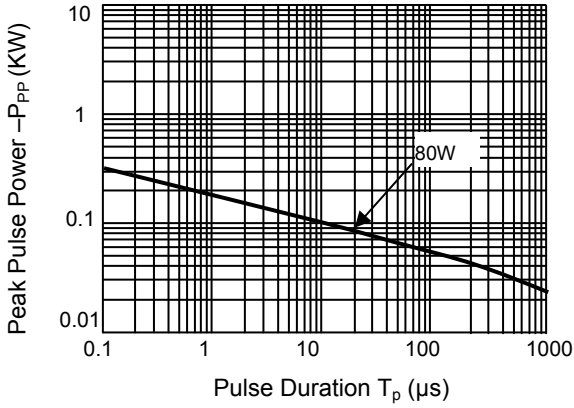


Figure 1. Peak Pulse Power Rating Curve

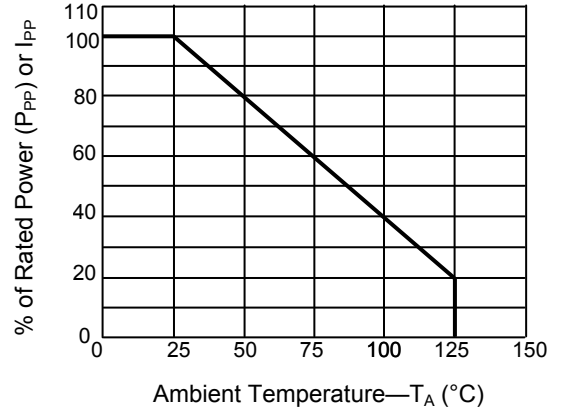


Figure 2. Pulse Derating Curve

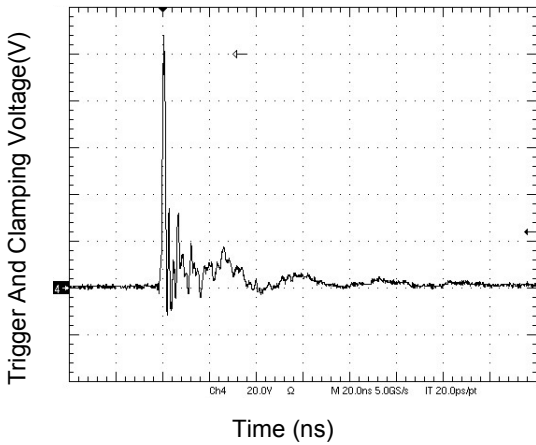


Figure 3. IEC61000-4-2 +8kV Contact Discharge

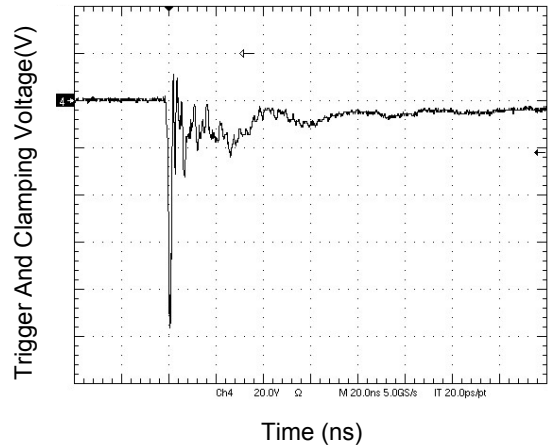


Figure 4. IEC61000-4-2 -8kV Contact Discharge

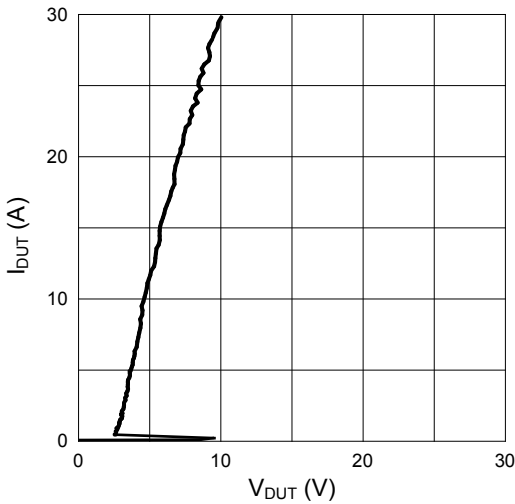


Figure 5. Transmission Line Pulse ($T_p=100ns$)

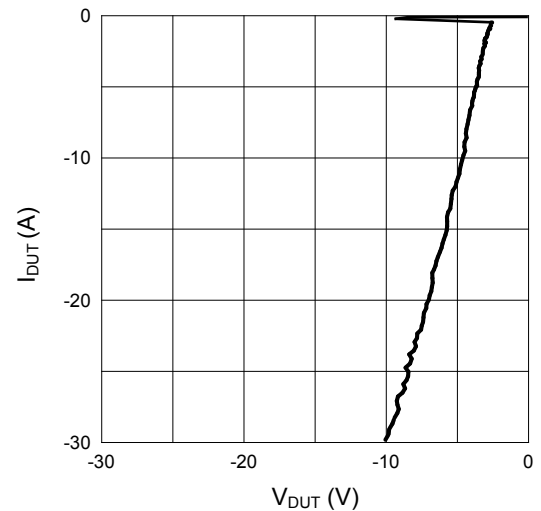
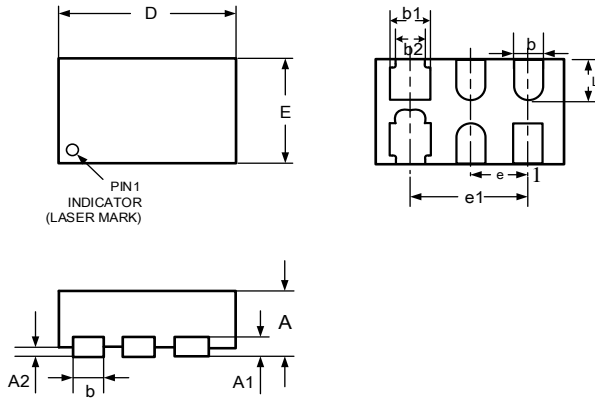


Figure 6. Transmission Line Pulse ($T_p=100ns$)

GSEY3B004

Ultra Low Capacitance ESD TVS Array

Product Dimensions DFN1610-6L



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	0.20	0.30	0.008	0.012
e	0.50BSC		0.020BSC	
e1	1.00BSC		0.039BSC	
A	0.40	0.50	0.016	0.020
A1	0.127REF		0.005REF	
A2	0.00	0.05	0.000	0.002

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSEY3B004	DFN1610-6L	HS3A	Tape & Reel	10000pcs / Reel	RoHS Compliant