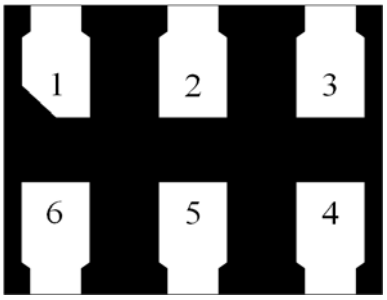
5V LOW CAPACITANCE TVS ARRAY FOR ESD PROTECTION

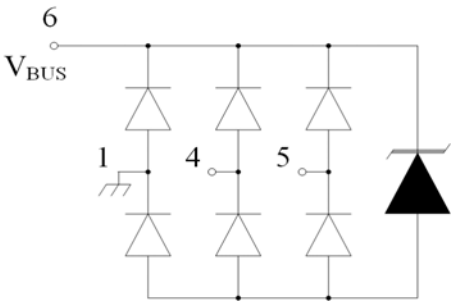
Features:

- 90 Watts Peak Pulse Power per Line (tp=8/20μs)
- Protects Two High Speed Lines
- Low Clamping Voltage
- RoHS Compliant
- IEC61000-4-2 (ESD) ±17kV (air), ±15kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- IEC61000-4-5 (LIGHTING) 3A (8/20μs)

DFN1109MP6



Pin Configuration



Applications:

- USB 3.0 / USB 3.1 Interfaces
- HDMI 1.4 / HDMI 2.0 Interfaces
- Video Graphics Cards
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Industrial Controls
- Peripherals

Mechanical Characteristics

- DFN1109TP6 (1.1x0.9mm) Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 1.0 Millgrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	90	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±17	Kv
ESD per IEC 61000−4−2 (Contact)		±15	
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

Electrical Characteristics(TA=25°C unless otherwise specified)

Part Number	Device Marking	V_{RWM} (V)	V_{BR} (V)	I_T (mA)	V_C @1A	Vc		I_R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
KULC051109MP6	UM1A	5	6	1	18	30	3	0.1	0.25

Characteristic Curves

Figure 1. 8 x 20μ s Waveform

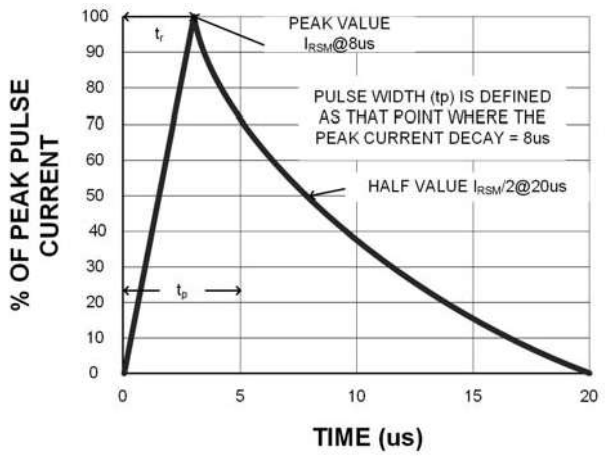


Figure 2. Power Derating Curve

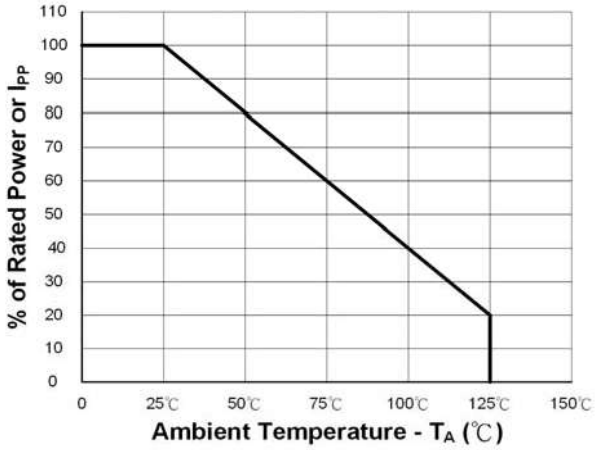
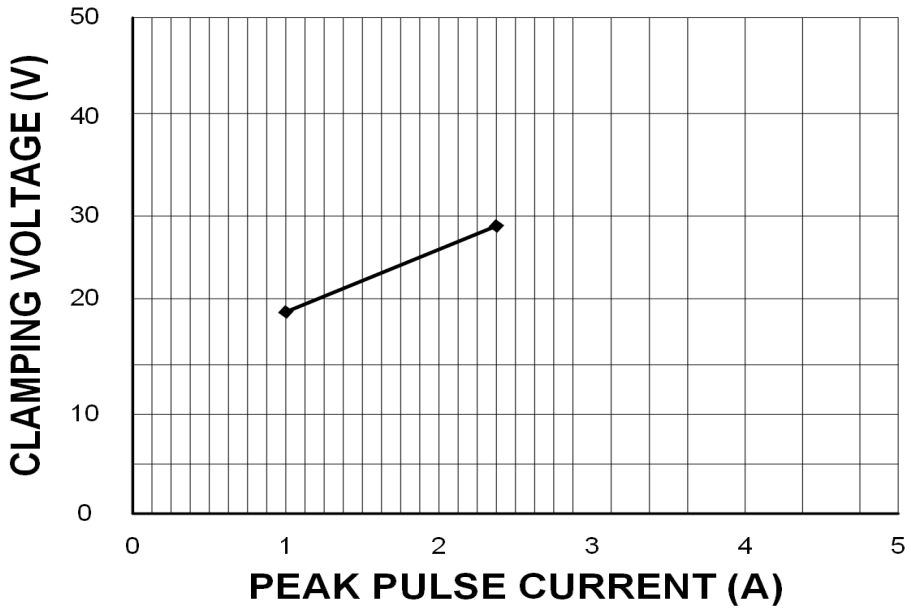


Figure 3. Clamping Voltage vs. Peak Pulse Current (tp=8/20us)



TYPIC CHARACTERISTICS

Figure 4. Typic Capacitance vs. Reverse Voltage

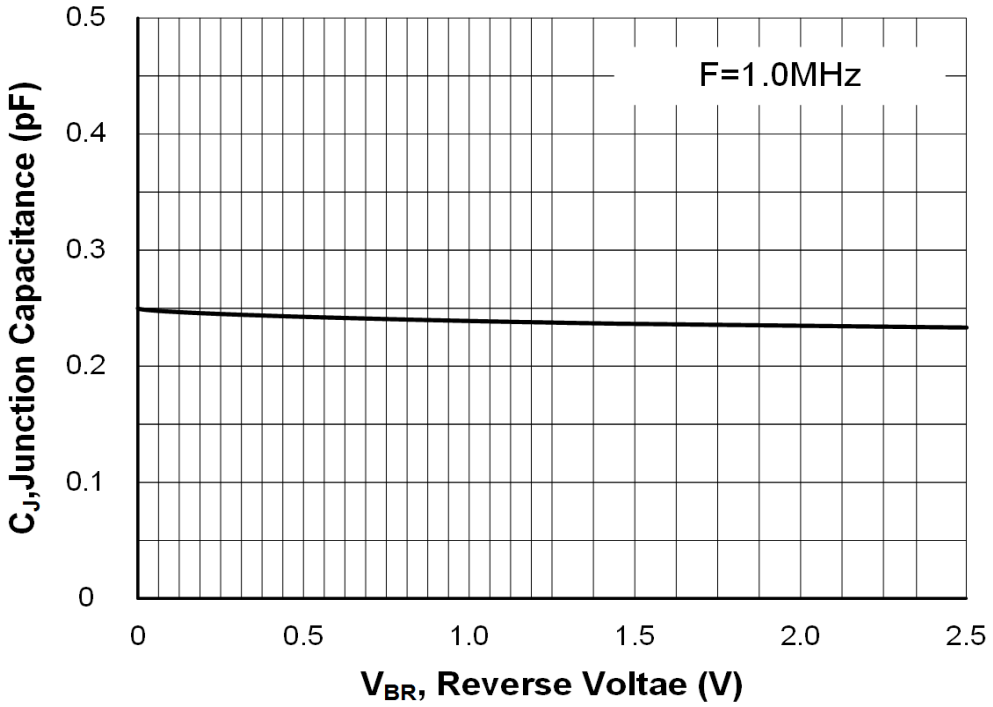
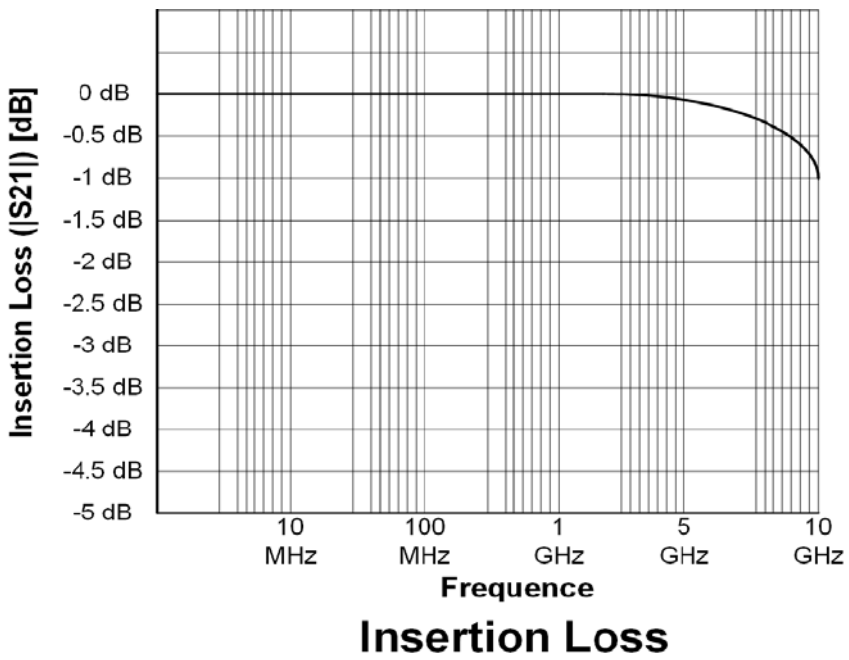


Figure 5. Typic Insertion Loss vs. Freqence



LAYOUT DIAGRAM INFORMATION

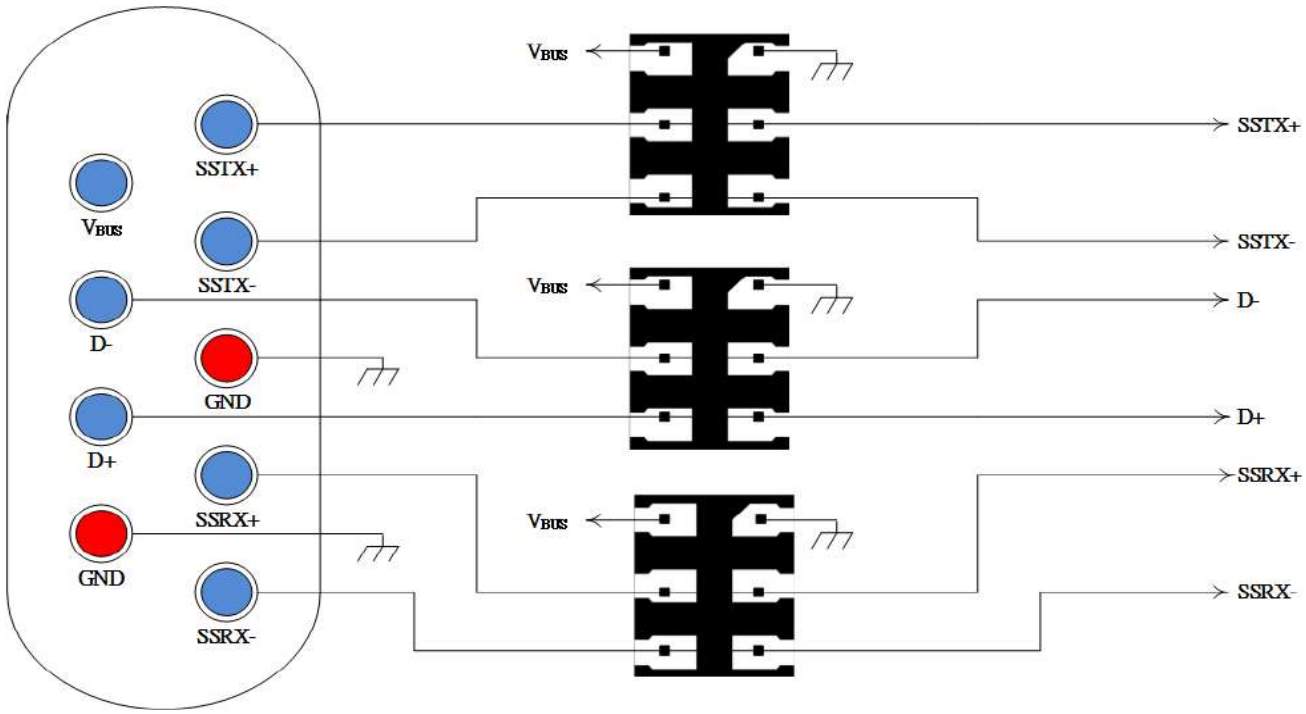


Figure 1. USB 3.0 Protection

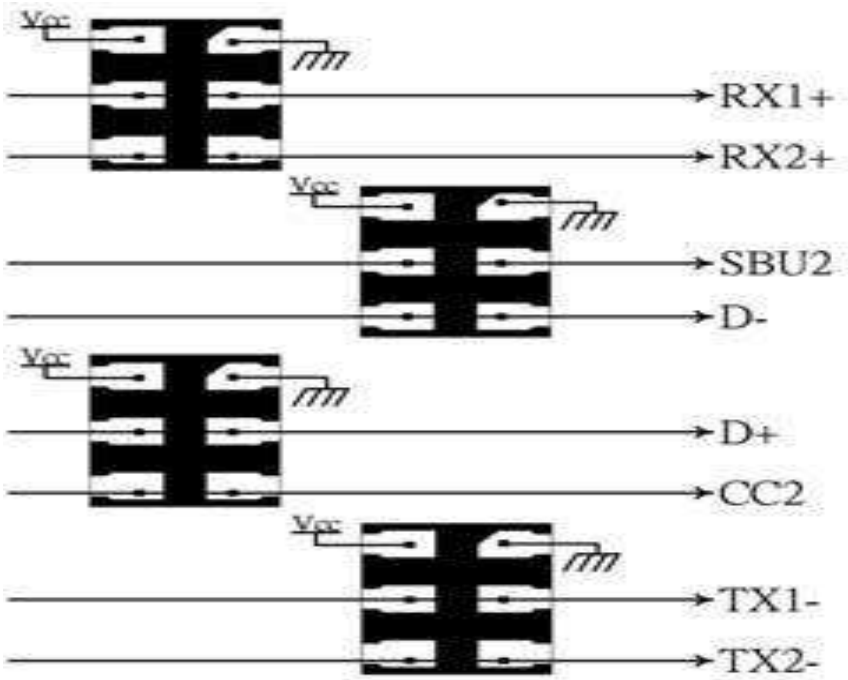
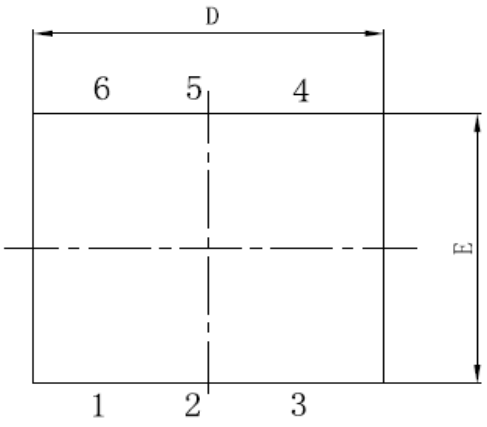
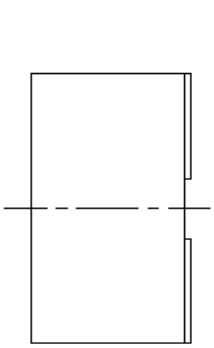


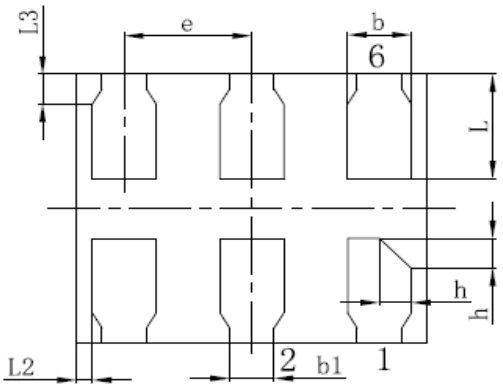
Figure 2. USB 3.1 Protection

DFN1109MP6 **PACKAGE OUTLINE & DIMENSIONS**

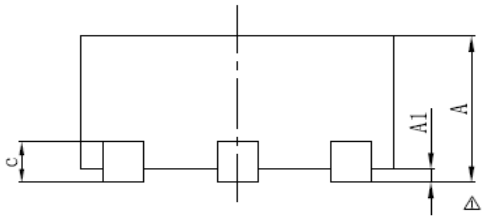


TOP VIEW





BOTTOM VIEW



SIDE VIEW

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0. 45	0. 50	0. 55
A1	0	0. 02	0. 05
b	0.15	0.20	0.25
b1	0.14REF		
c	0.10	0.152	0.20
D	1. 05	1. 10	1. 15
e	0. 40BSC		
E	0. 85	0. 90	0. 95
L	0.30	0.35	0.40
L2	0. 05REF		
L3	0. 10REF		
h	0.05	0.10	0.15