

ESD Diode

Peak Pulse Power - 30 Watts

Features

- Meet IEC61000-4-2 (ESD)±15kV (air),±8kV (contact)
- Meet IEC61000-4-5 (Lightning) rating. 2A (8/20µs)
- Protects one bi-directional I/O line
- Working Voltage : 5V, typical capacitance : 0.3pF
- Pb free version, RoHS compliant, and Halogen free

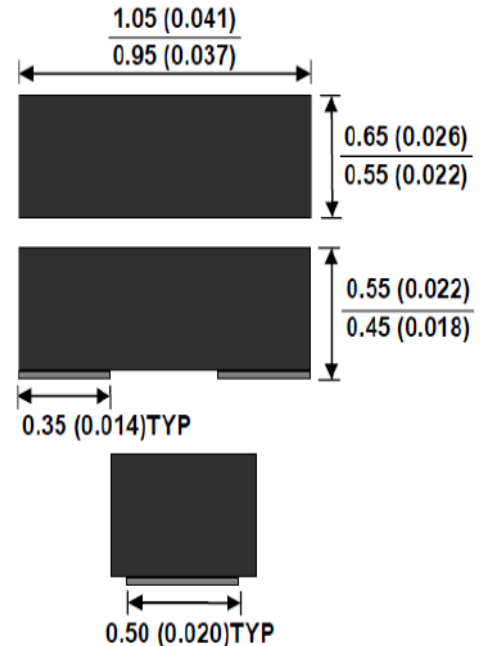
Mechanical Data

- Case: DFN1006(0402) mold package
- Terminal: Sn/Au plated, solderable per MIL-STD-750, method 2026
- Mounting position: Any
- High temperature soldering guaranteed: 260°C /10second
- Weight: 0.001 gram(approx.).
- MSL : Level 1
- Marking Code: S

Applications

- Cell Phone Handsets and Accessories
- Notebooks, Desktops, and Servers
- PCI express, SATA, USB 2.0,DVI, Display port
- Portable Instrumentation

DFN1006(0402)



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Characteristics	Symbol	Min	Typ	Max	Unit
Peak Pulse Power, $t_p=8/20\mu s$	P_{pk}			30	W
Max Peak Pluse Current, $t_p=8/20\mu s$	I_{pp}		2		A
Operating Junction Temperature	T_j	-55		125	°C
Storage Temperature	T_{stg}	-55		150	°C
Reverse Stand-Off Voltage	V_{RWM}			5	V
Reverse Breakdown Voltage , $I_t = 1mA$	V_{BR}			9.0	V
Reverse Leakage Current, $V_{RWM} = 5V$	I_R			50	n A
Clamping Voltage , $I_{pp} = 1A, t_p = 8/20 \mu s$	V_c			14	V
Junction Capacitance, Between I/O Pin and GND $V_R=0V, f=1MHz$	C_j		0.3	0.6	pF

Fig.1 - 8/20us Peak Pulse Current Wave Form Acc. IEC 61000-4-5

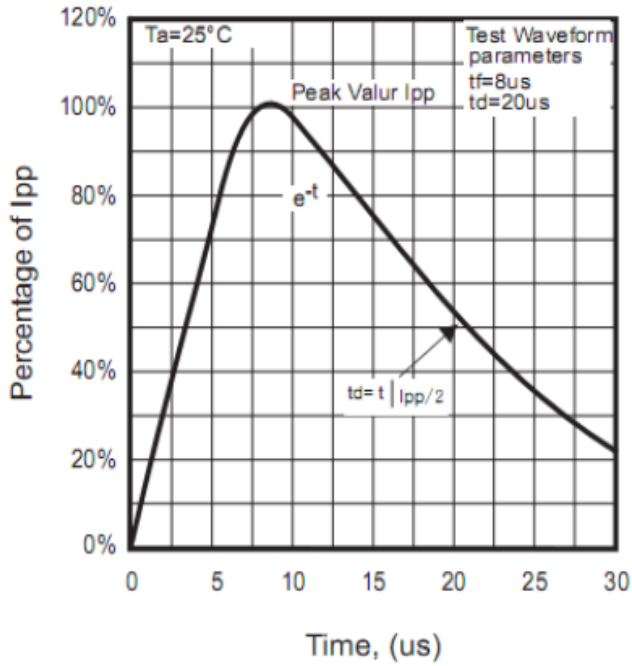


Fig.2 - Typical Capacitance Between Terminals Characteristics

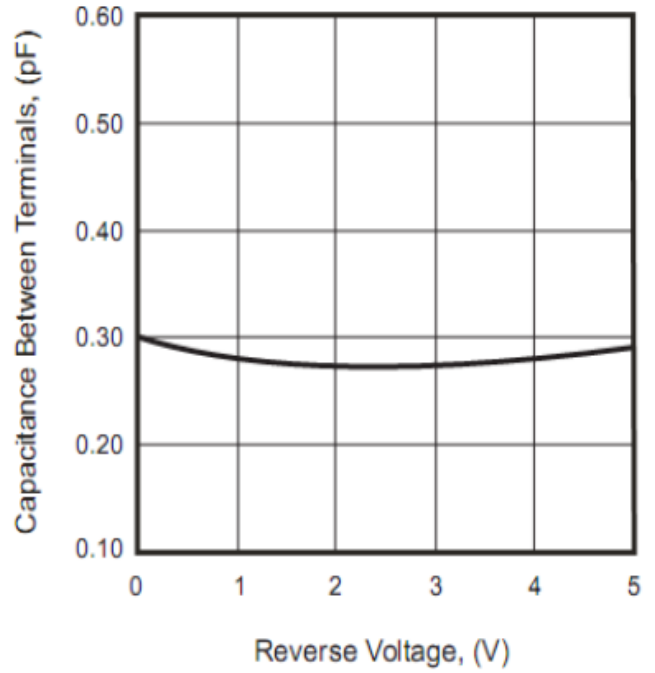


Fig.3 - Clamping Voltage Vs. Peak Pulse Current

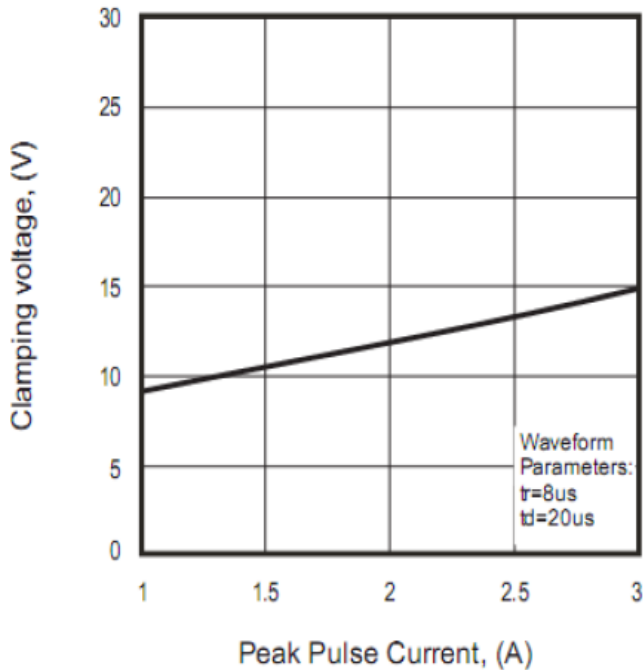
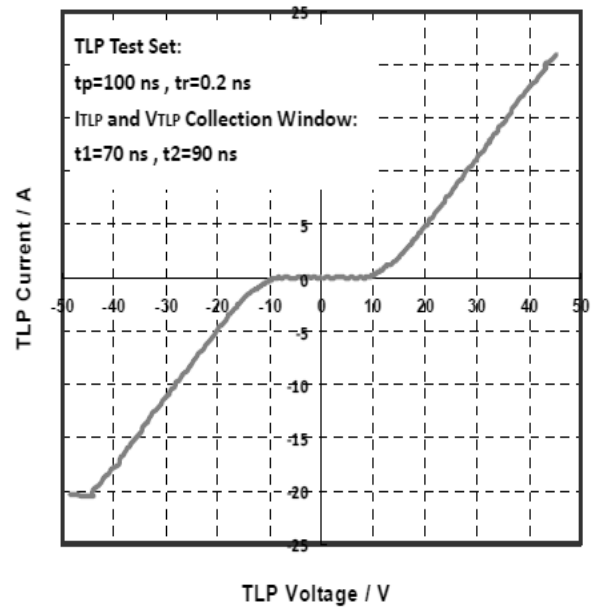


Fig.4 - TLP Measurement



The curve above is for reference only.

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Fig. 5 Unclamped -8 kV ESD pulse waveform
(IEC 61000-4-5 network)

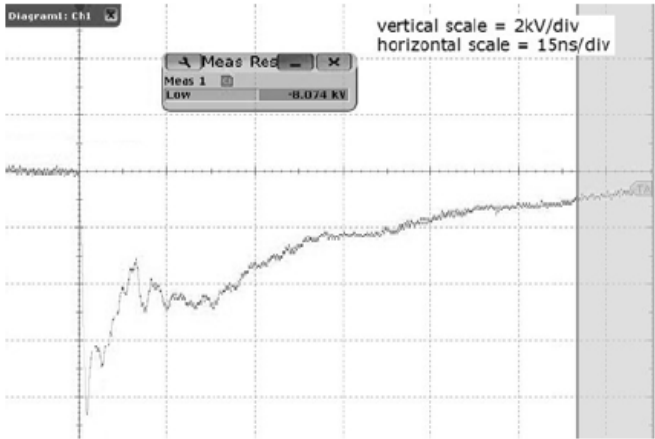


Fig. 6 Unclamped +8 kV ESD pulse waveform
(IEC 61000-4-5 network)

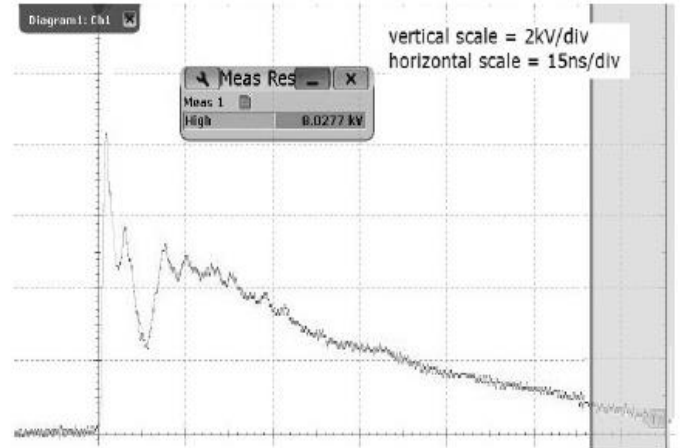


Fig. 7 Clamped -8 kV ESD pulse waveform
(IEC 61000-4-5 network)

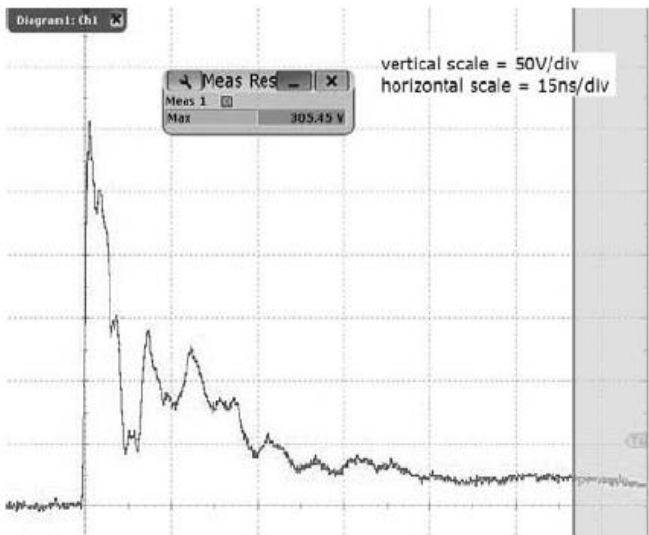
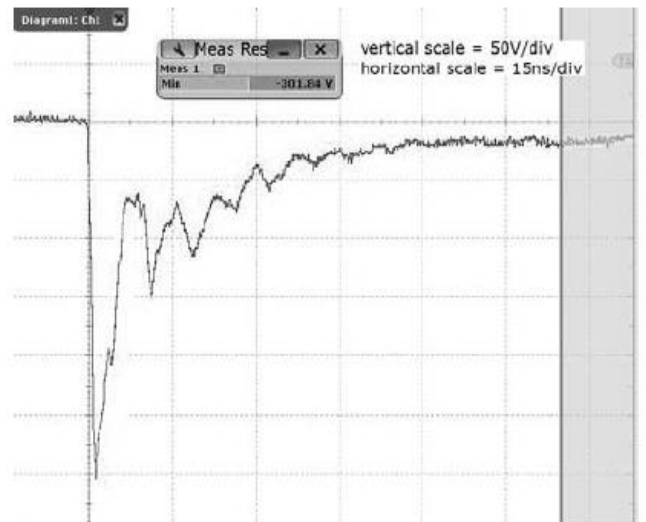


Fig. 8 Clamped +8 kV ESD pulse waveform
(IEC 61000-4-5 network)



The curve above is for reference only.

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