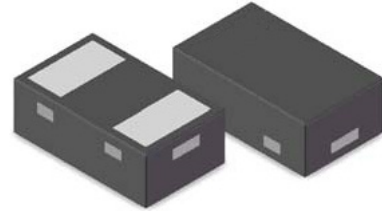


Features and benefits

- Bidirectional configurations
- Low insertion loss and return loss
- Very Low clamping voltage
- Low leakage current
- ESD protection up to $\pm 10\text{kV}$ according to IEC 61000-4-2
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)



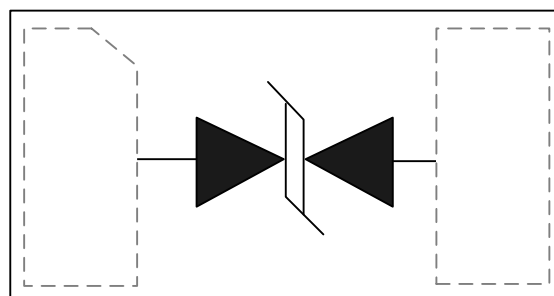
Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Type-C and Thunderbolt data lines
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Mechanical Data

- DFN1006 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



DFN1006



Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 10	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}		-2.8		2.8	V
Trigger Voltage	V_T	$I_T=0.1mA$	7	9	14	V
Holding Voltage	V_H	$I_T=I_H$	2		5	V
Holding Current	I_H		15			mA
Reverse Leakage Current	I_R	$V_{RWM}=2.8V, T=25^\circ C$			500	nA
Clamping Voltage	V_C	$I_{PP}=5A, t_p=8/20\mu s$		7	9	V
Dynamic resistance	R_{dyn}	$I_T=10A, t_p=TLP$		0.4		Ω
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.45	0.60	pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_T	Trigger voltage
I_T	Test Current
V_H	Holding voltage
I_H	Holding Current

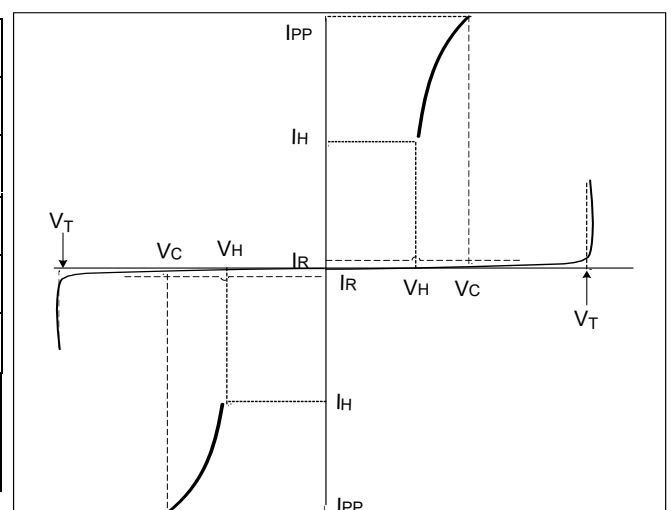


Figure 1: Pulse Waveform

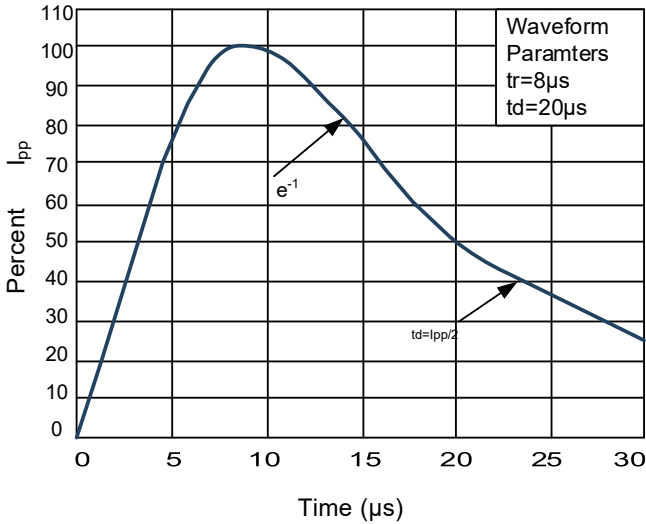


Figure 2: Clamping Voltage vs. I_{pp}

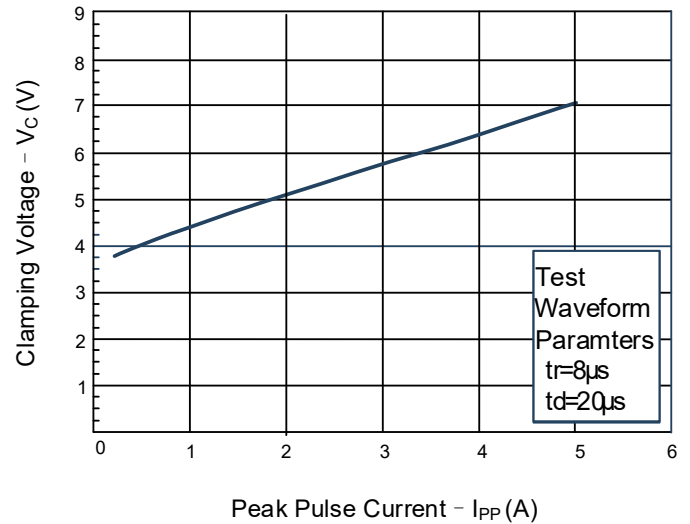


Figure 3: Power Derating Curve

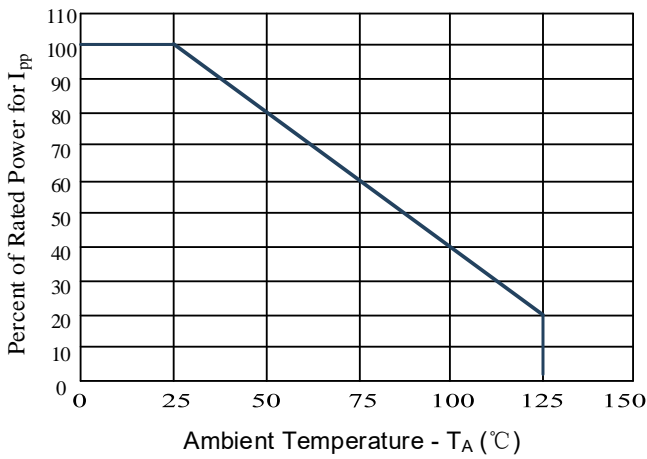


Figure 4: Pulse Waveform-ESD

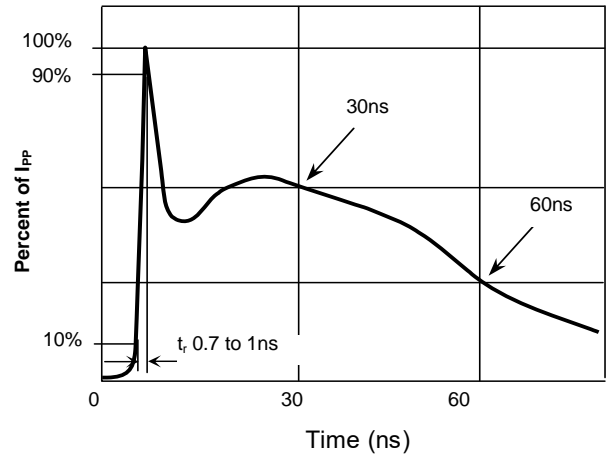


Figure 5: Positive clamping voltage (TLP)

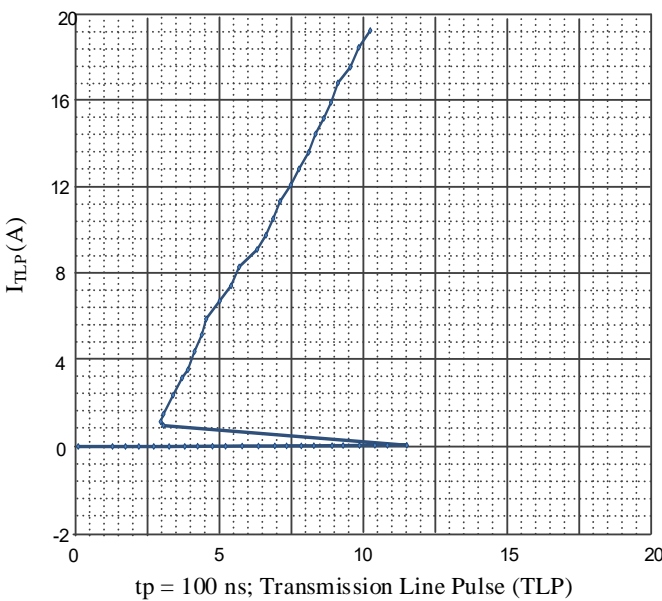
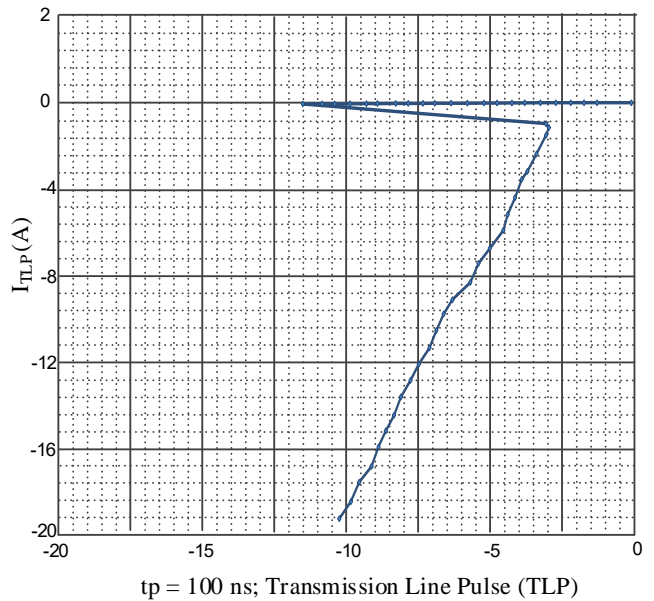
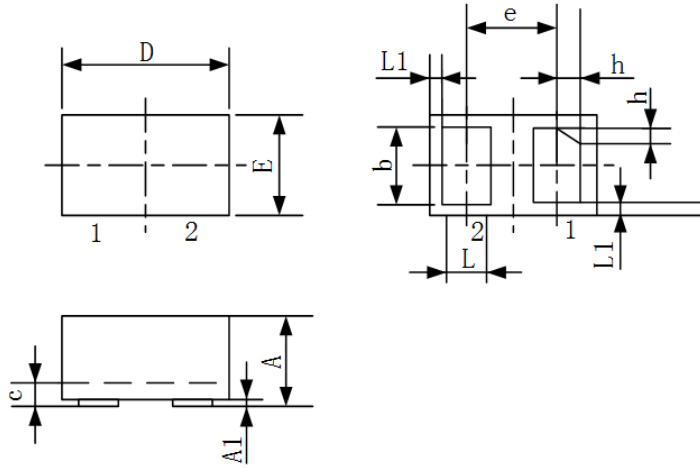
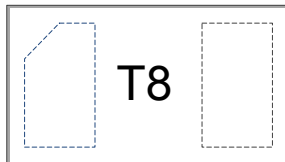


Figure 6: Negative clamping voltage (TLP)



Outline Drawing – DFN1006


SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.40	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (MIL)	20*20		

Marking

Ordering information

Order code	Package	Base qty	Delivery mode
RLSD92Q0281UC	DFN1006	10k	Tape and reel

