

Normal Capacitance TVS Diode

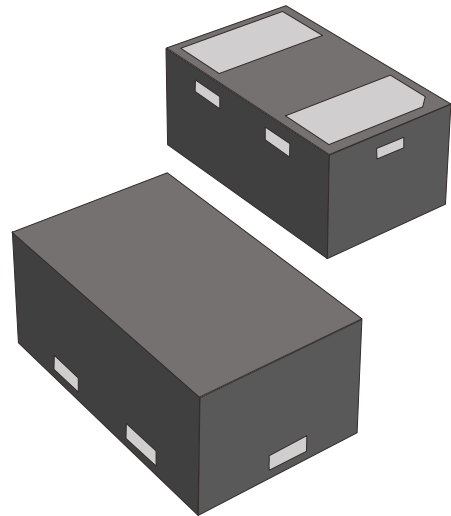
FEATURES

- ◆ 80Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Bi-directional configurations
- ◆ Solid-state silicon-avalanche technology
- ◆ Capacitance: 15pF typical
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30KV$
 - Contact discharge: $\pm 30KV$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 8A (8/20us)

DFN1006

SOD-882

1mm×0.6mm×0.5mm



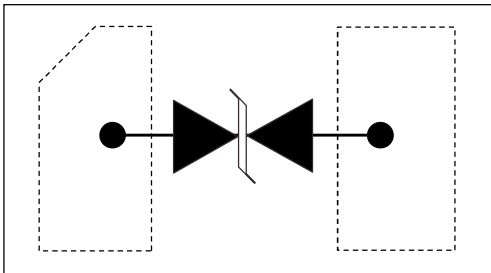
APPLICATIONS

- ◆ Cellular Handsets and Accessories
- ◆ Personal Digital Assistants
- ◆ Notebooks and Handhelds
- ◆ Portable Instrumentation
- ◆ Digital Cameras
- ◆ Peripherals

MACHANICAL DATA

- ◆ Package: DFN1006
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Packaging: Tape and Reel
- ◆ RoHS/WEEE Compliant

PIN CONFIGURATION



MARKING



ABSOLUTE MAXIMUM RATING

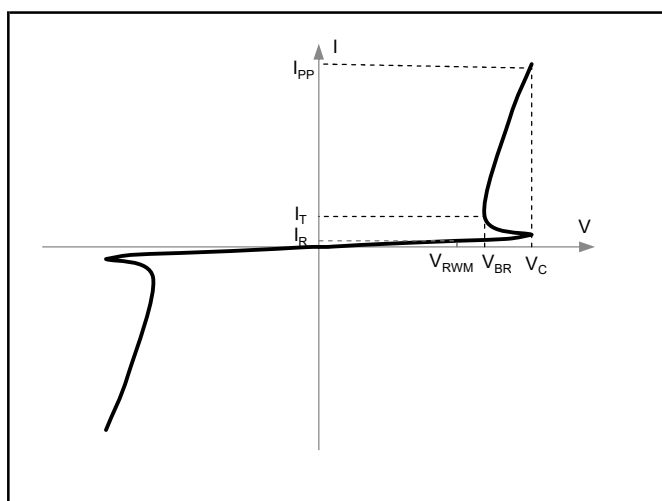
Parameter	Symbol	Value	Units
Reverse Working Voltage	V_{RWM}	3.3	V
Peak Pulse Power (tp=8/20μs)	P_{PP}	80	W
Peak Pulse Current (tp=8/20μs)	I_{PP}	8	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD-Air}$	30	KV
ESD per IEC 61000-4-2 (Contact)	$V_{ESD-Contact}$	30	KV
Lead Soldering Temperature (10s)	T_L	260	°C
Operating Junction Temperature Range	T_J	-55 to 125	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V$			0.5	uA
Breakdown Voltage	V_{BR}	$I_T = 1mA$	3.5	4.1	5	V
Clamping Voltage	V_C	$I_{PP} = 1A, tp=8/20\mu s$		4.8	6.5	V
		$I_{PP} = 8A, tp=8/20\mu s$		8	10	V
Junction Capacitance	C_J	$V_{DC} = 0V, f=1MHz$		15	20	pF

ELECTRICAL PARAMETERS

Symbol	Definition
I_{PP}	Peak Pulse Current
V_C	Clamping Voltage
V_{RWM}	Reverse Working Voltage
I_R	Reverse Leakage Current
V_{BR}	Breakdown Voltage
I_T	Test Current



RATING AND CHARACTERISTICS CURVES (TEP3301CM)

Fig.1 - Peak Pulse Power Rating

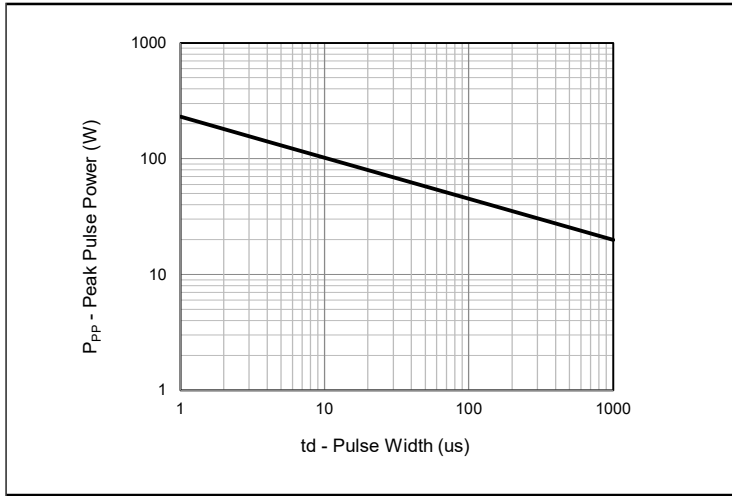


Fig.2 - Pulse Derating Curve

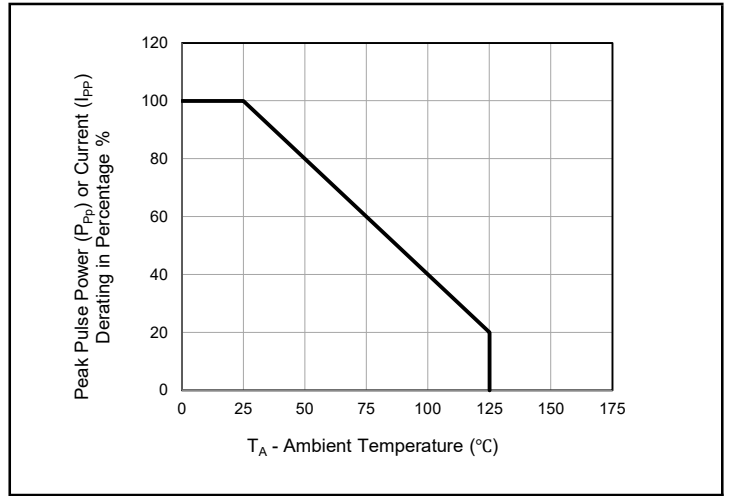


Fig.3 - 8/20us Pulse Waveform

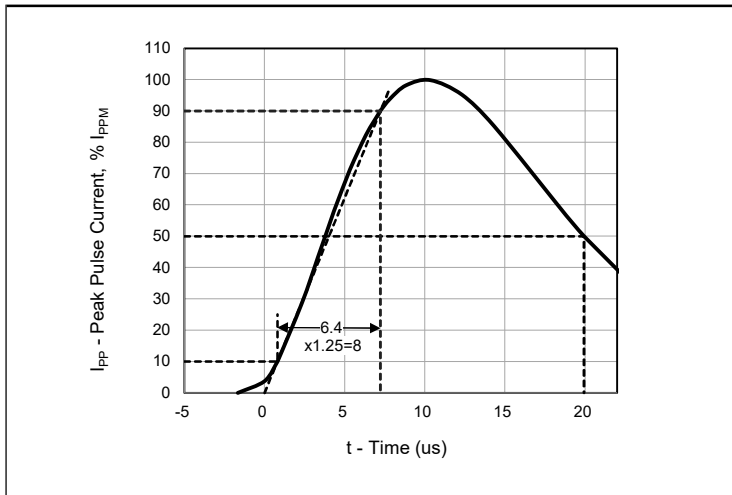


Fig.4 - Typical Clamping Voltage

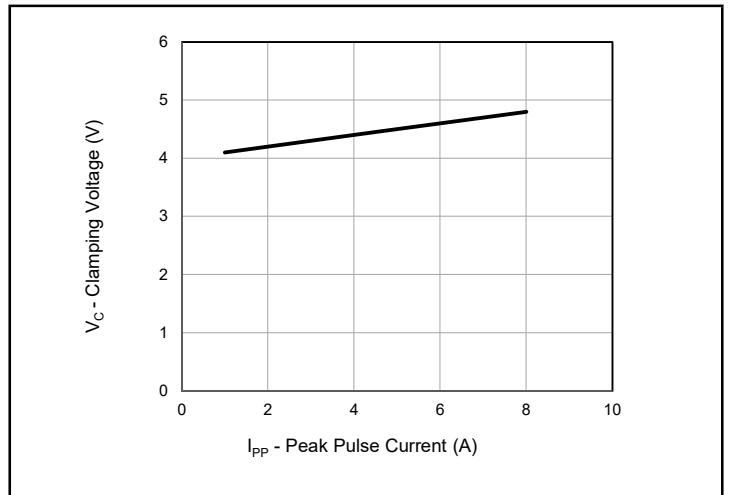


Fig.5 - ESD Pulse Waveform (IEC61000-4-2)

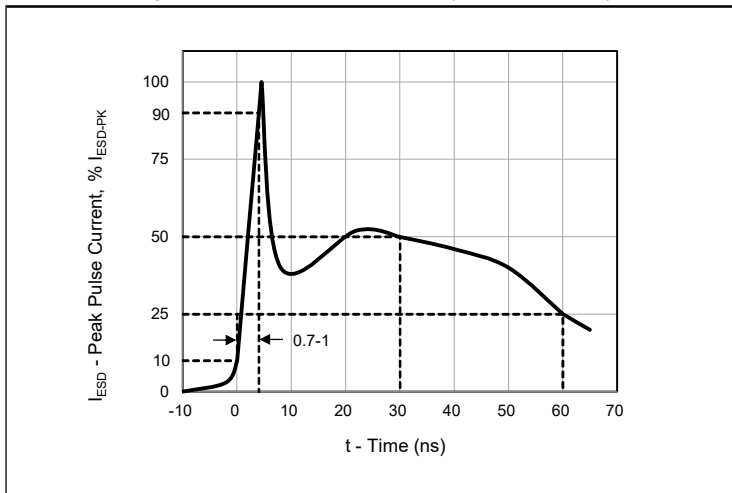
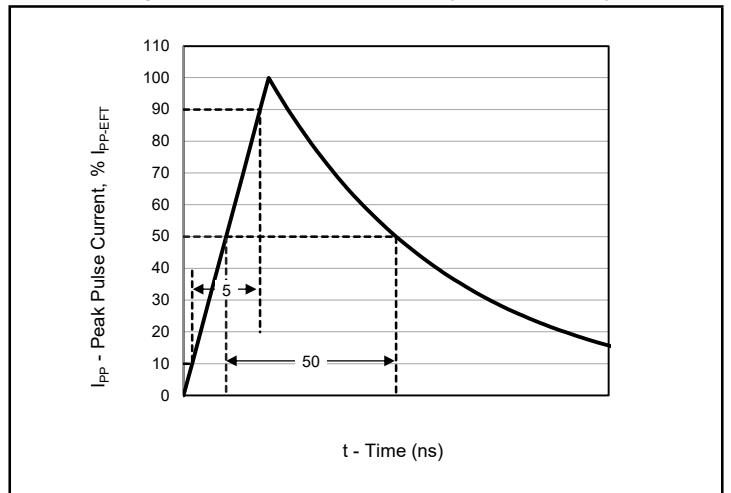
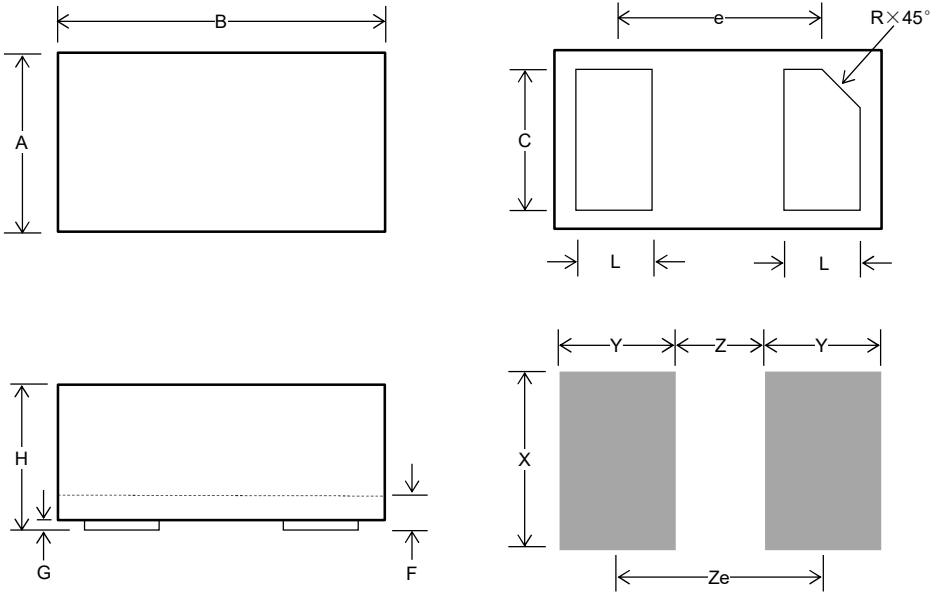


Fig.6 - 5/50ns EFT Waveform (IEC61000-4-4)



DFN1006 PACKAGE OUTLINE DIMENSIONS



DFN1006			
SYMBOL	Millimeters		
	MIN	NOM	MAX
A	0.55	0.6	0.68
B	0.95	1	1.08
C	0.45	0.5	0.55
F	0.12		0.18
G	-	0	0.05
H	0.45	0.5	0.55
L	0.2	0.3	0.35
e		0.65	
X		0.6	
Y		0.5	
Z		0.3	
Ze		0.8	

PACKAGE	PACKING CODE	REEL SIZE (inch)	PER REEL (EA)	REEL DIA (mm)	CARTON SIZE (mm)	PER CARTON (EA)	GROSS WEIGHT (Kg)
DFN1006	-T	7	10,000	178	390*205*310	400,000	6.16

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