

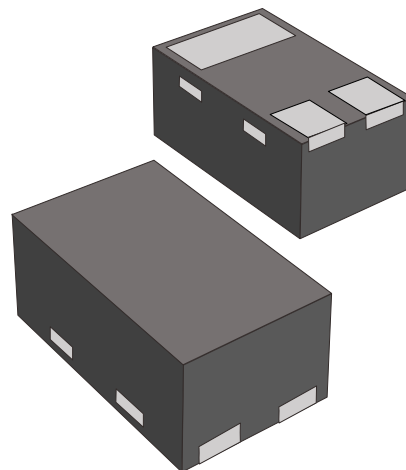
Features

- ◆ 75Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ Uni-directional configurations
- ◆ Solid-state silicon-avalanche technology
- ◆ Capacitance: 0.8pF maximum
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25KV$
 - Contact discharge: $\pm 20KV$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 5A (8/20us)

DFN1006P3

DFN1.0×0.6-3L

1mm×0.6mm×0.475mm



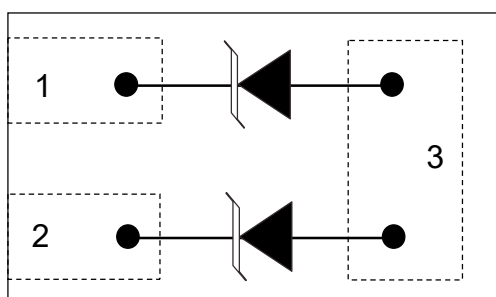
Applications

- ◆ Cellular Handsets and Accessories
- ◆ Display Ports
- ◆ MDDI Ports
- ◆ USB 2.0 and 3.0 Ports
- ◆ HDMI 1.3 and 1.4
- ◆ Digital Visual Interface(DVI)

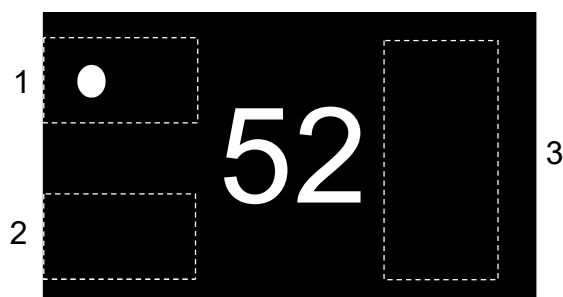
Mechanical Data

- ◆ Package: DFN1006P3
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Packaging: Tape and Reel
- ◆ RoHS/WEEE Compliant

Schematic & PIN Configuration



Marking



Absolute Maximum Ratings

Parameter	Symbol	Value	Units
Reverse Working Voltage	V_{RWM}	5	V
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	75	W
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	5	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD-Air}$	25	KV
ESD per IEC 61000-4-2 (Contact)	$V_{ESD-Contact}$	20	KV
Lead Soldering Temperature (10s)	T_L	260	°C
Operating Temperature Range	T_J	-55 to 125	°C
Storage Temperature Range	T_{STG}	-55 to 150	°C

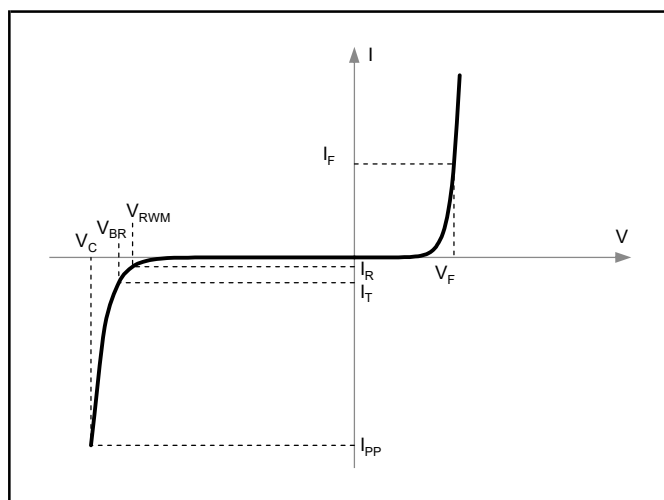
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Breakdown Voltage	V_{BR}	$I_T = 1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$			0.5	μA
Clamping Voltage	V_{C1}	$I_{PP1} = 1A$, $t_p=8/20\mu s$			10	V
Clamping Voltage	V_C	$I_{PP} = 5A$, $t_p=8/20\mu s$			15	V
Junction Capacitance	C_J	$V_{DC} = 0V$, $f=1MHz$			0.8	pF

Notes: The default test is I/O pin to ground.

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
V_F	Forward Voltage
I_F	Forward Current



Typical Characteristics

Fig.1 - Peak Pulse Power Rating

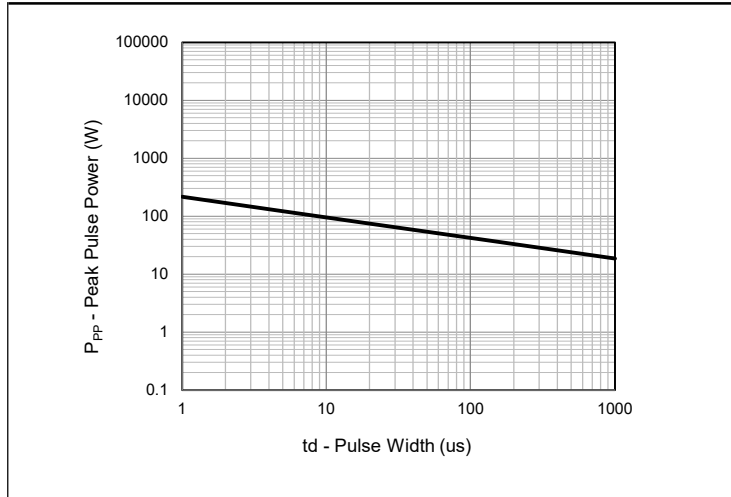


Fig.2 - Pulse Derating Curve

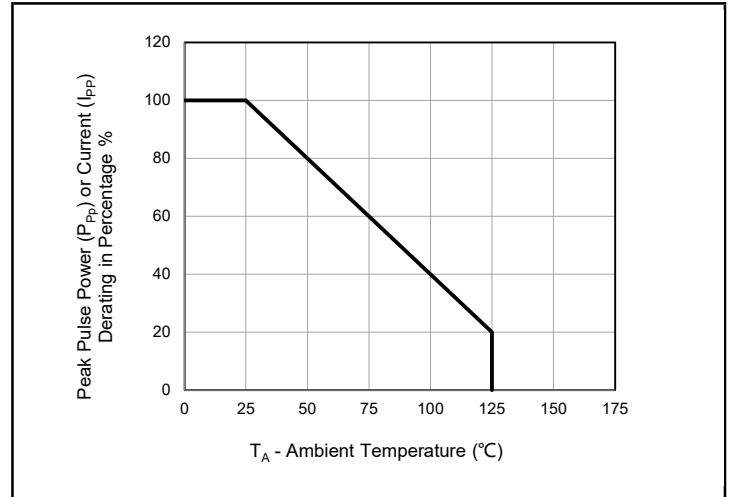


Fig.3 - 8/20 μs Pulse Waveform

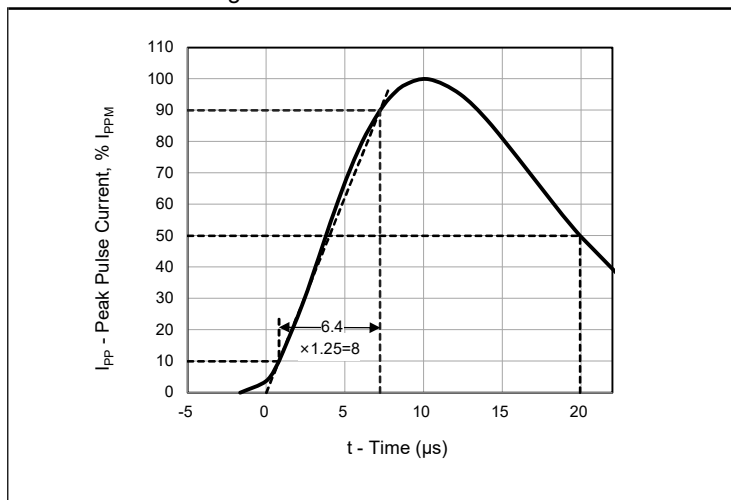


Fig.4 - Typical Clamping Voltage

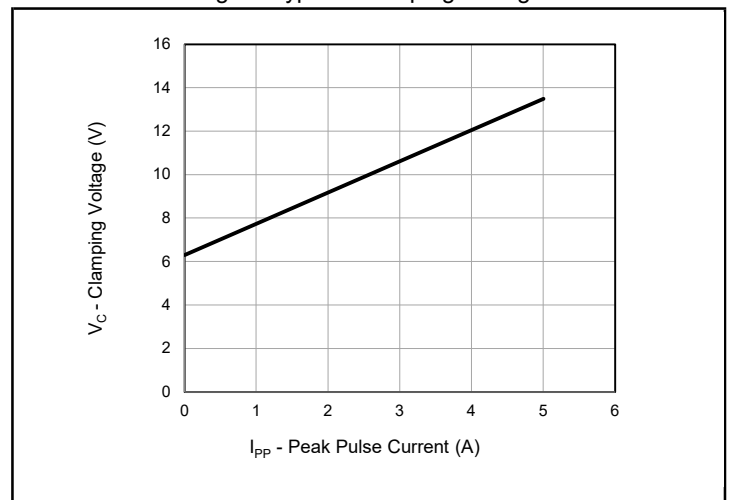


Fig.5 - ESD Pulse Waveform (IEC61000-4-2)

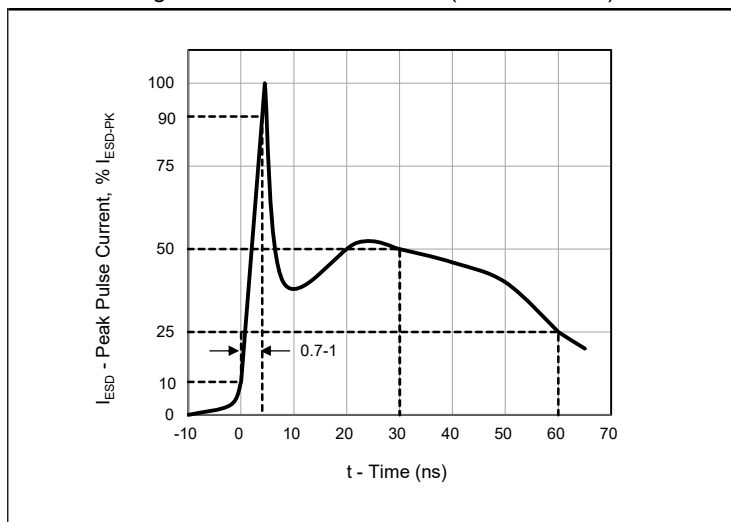
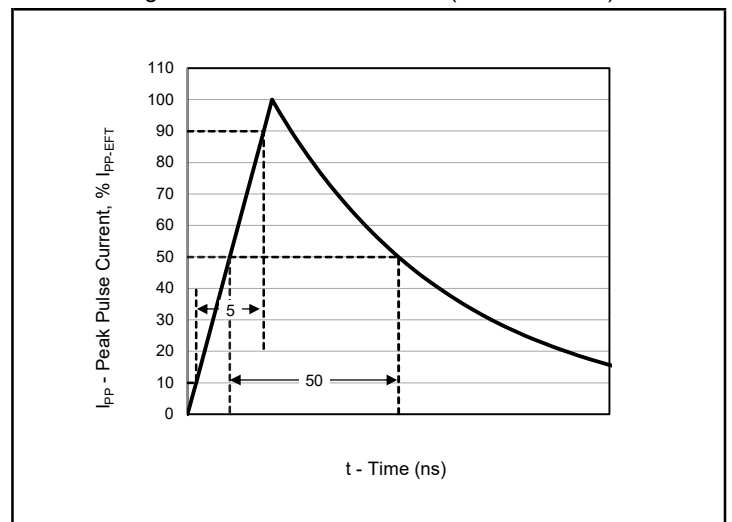
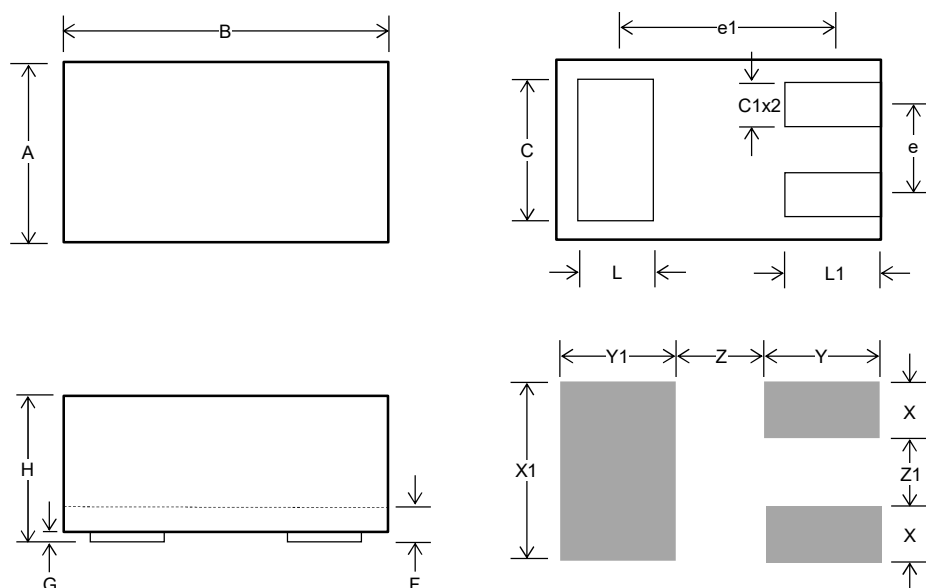


Fig.6 - 5/50ns EFT Waveform (IEC61000-4-4)



Outline Drawing



DFN1006P3			
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		0.125	
G	0		0.05
H	0.45	0.475	0.5
L	0.15	0.2	0.25
e		0.35	
C1	0.1	0.15	0.2
L1	0.25	0.3	0.35
e1		0.675	
X		0.25	
Y		0.5	
Z		0.25	
X1		0.65	
Y1		0.5	
Z1		0.2	

Ordering Information

Order Code	Package	Base Quantity	Delivery Mode
SENA3A0502SM	DFN1006P3	10000 PCS/Reel	Tape and Reel