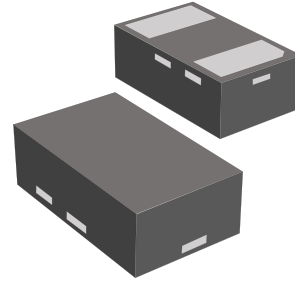


»Features

- 1620Watts peak pulse power ($t_p = 8/20\mu s$)
- Uni-directional configurations
- Solid-state silicon-avalanche technology
- 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) 45A (8/20us)



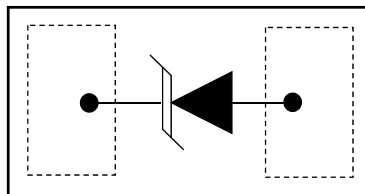
»Applications

- Computer
- Mobile Phones and Accessories
- Digital Cameras
- Personal Digital Assistants

»Mechanical Data

- Package: DFN1610
- UL Flammability Classification Rating 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

»Schematic & PIN Configuration



DFN1610

»Absolute Maximum Ratings

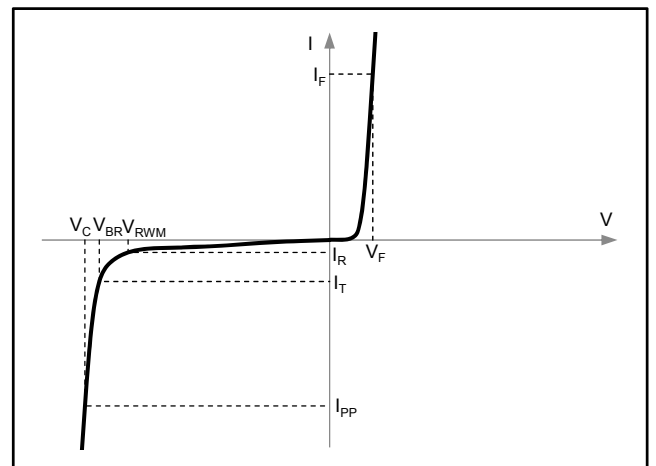
Parameter	Symbol	Value	Units
Reverse Working Voltage	V_{RWM}	18	V
Peak Pulse Power (8/20 μ s)	P_{PP}	1620	W
Peak Pulse Current (8/20 μ s)	I_{PP}	45	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD-Air}$	30	KV
ESD per IEC 61000-4-2 (Contact)	$V_{ESD-Contact}$	30	KV
Lead Soldering Temperature	T_L	260(10s)	$^{\circ}C$
Operating Temperature Range	T_J	-55 to 125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}C$

»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Breakdown Voltage	V_{BR}	$I_T = 1mA$	20			V
Reverse Leakage Current	I_R	$V_{RWM} = 18V$			0.5	μA
Clamping Voltage	V_C	$I_{PP} = 45A$, 8/20 μ s		33	36	V
Junction Capacitance	C_J	$V_{DC} = 0V$, $f = 1MHz$		250	350	pF

»Electrical Parameters

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



»Typical Characteristics

Fig.1 - Peak Pulse Power Rating

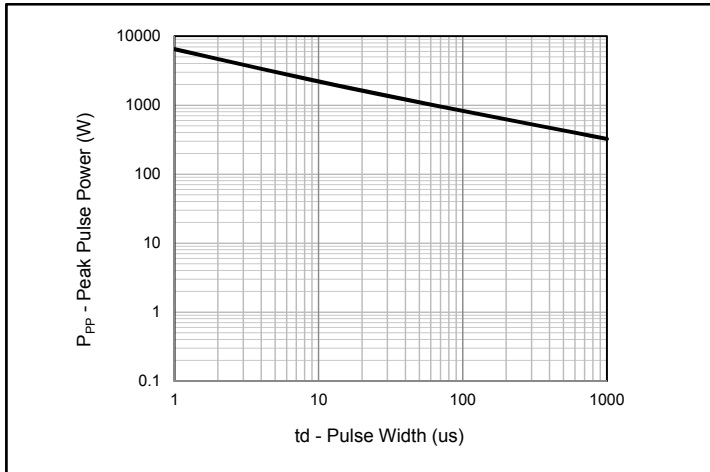


Fig.2 - Pulse Derating Curve

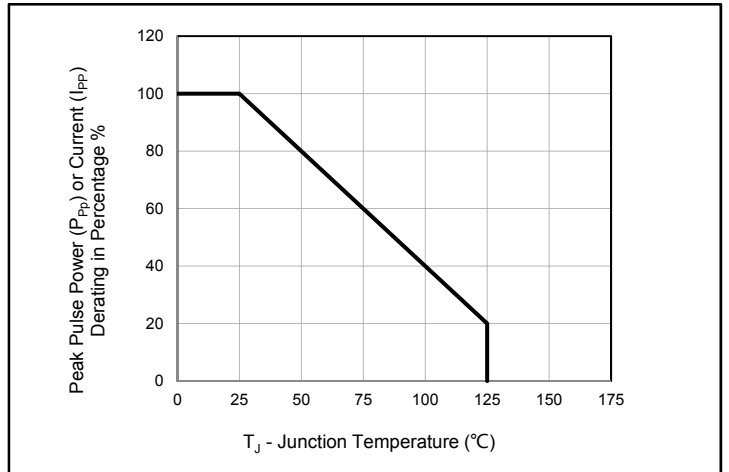


Fig.3 - 8/20us Pulse Waveform

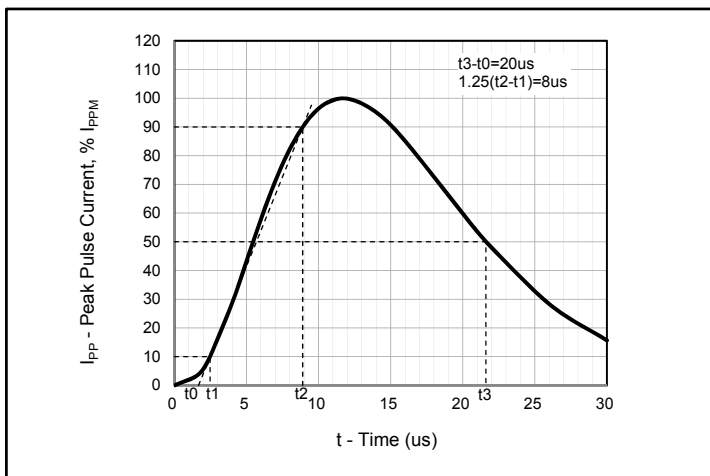
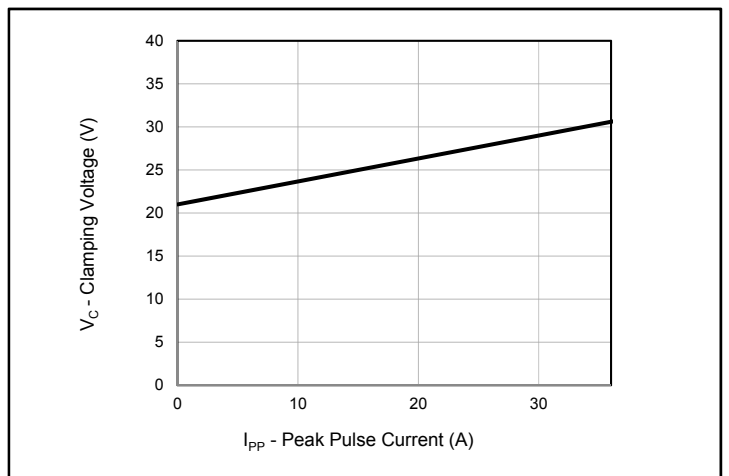
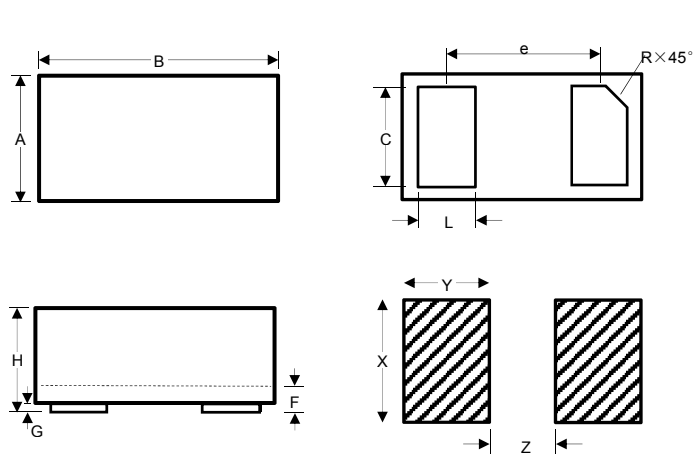


Fig.4 - Clamping Voltage

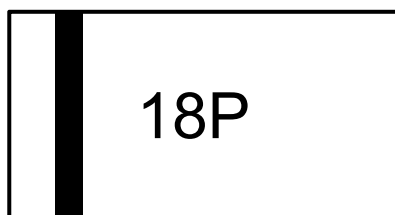


»Outline Drawing



DFN1610						
SYMBOL	Millimeters			Inches		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.95	1	1.05	0.037	0.039	0.041
B	1.55	1.6	1.65	0.061	0.063	0.065
C	0.75	0.8	0.85	0.03	0.031	0.033
L	0.35	0.4	0.45	0.014	0.016	0.018
e1		1.1			0.043	
H	0.45	0.5	0.55	0.018	0.02	0.022
R	0.15	0.2	0.25	0.006	0.008	0.01
X		1			0.039	
Y		0.625			0.025	
Z		0.6			0.024	

»Marking



Marking Code: 18P

»Ordering Information

Order Code	Package	Base Quantity	Delivery Mode
BN5A181V45	DFN1610	3000	Tape and Reel