



» Features

- 3500Watts 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) 80A (8/20us)



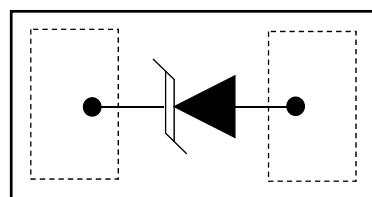
» Applications

- 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

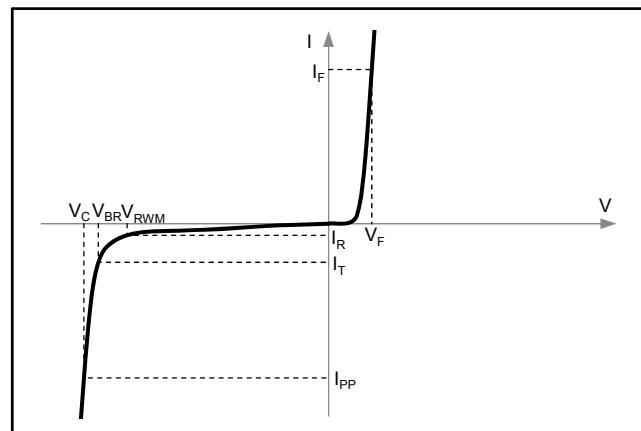
Parameter	Symbol	Value	Units
Reverse Working Voltage	V_{RWM}	20	V
Peak Pulse Power (8/20μs)	P_{PP}	3500	W
Peak Pulse Current (8/20μs)	I_{PP}	80	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD-Air}$	30	kV
ESD per IEC 61000-4-2 (Contact)	$V_{ESD-Contact}$	30	kV
Lead Soldering Temperature	T_L	260(10s)	°C
Operating 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}	$I_T = 1\text{mA}$	22	25		V
Reverse Leakage Current	I_R	$V_{RWM} = 20\text{V}$			1	uA
Clamping Voltage	V_C	$I_{PP} = 80\text{A}, 8/20\mu\text{s}$		38		V
Junction Capacitance	C_J	$V_{DC} = 0\text{V}, f = 1\text{MHz}$		200		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

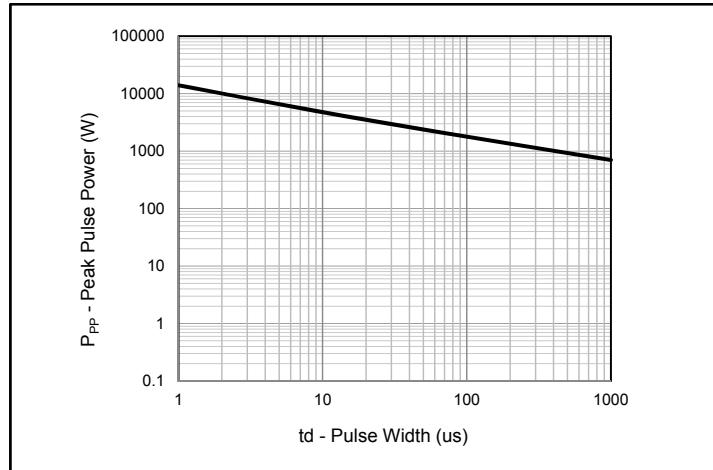


Fig.2 - Pulse Derating Curve

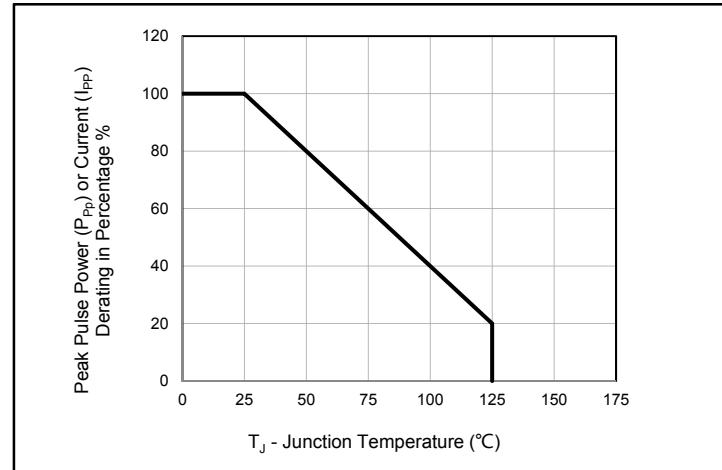


Fig.3 - 8/20us Pulse Waveform

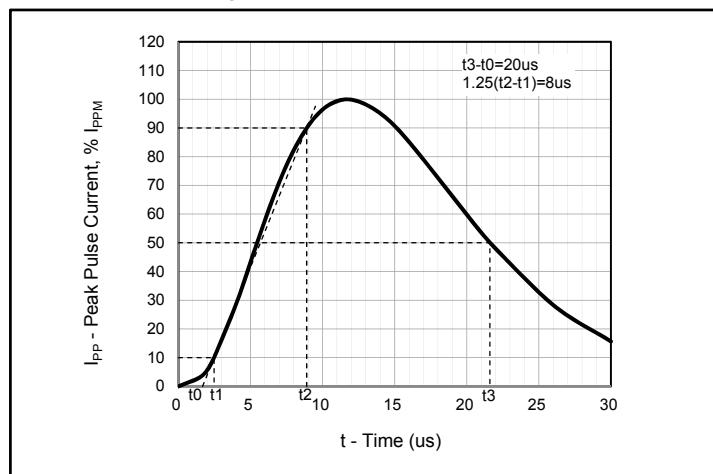
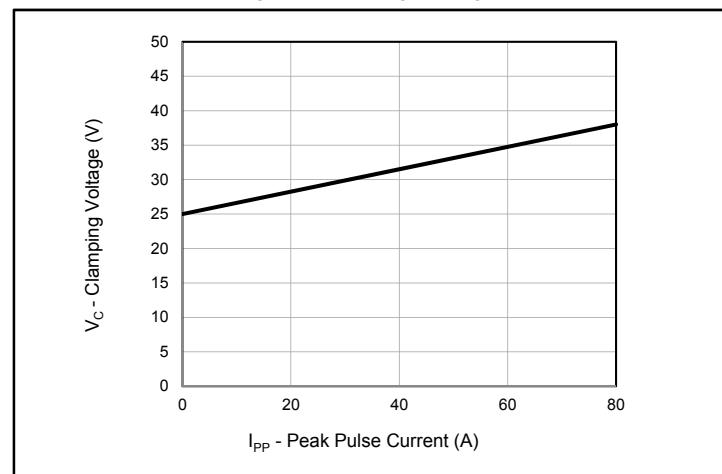
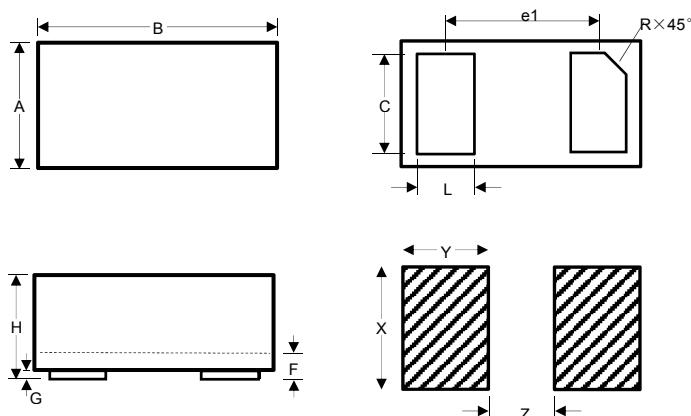


Fig.4 - Clamping Voltage

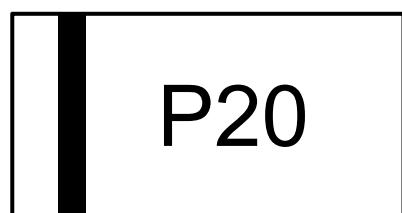


» Outline Drawing



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: P20

» Ordering Information

Order Code	Package	Base Quantity	Delivery Mode
SESF16N2012H	DFN1610	3000	Tape and Reel