Features

- 1650Watts peak pulse power (tp = 8/20μs)
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Protection one data/power line
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning)75A (8/20μs)



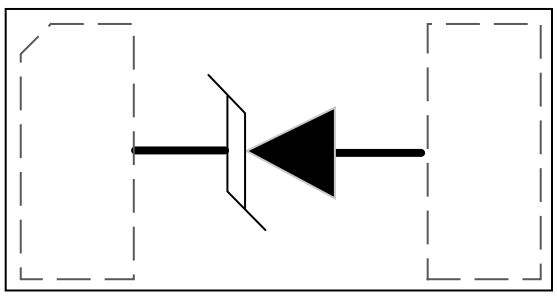
Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Mechanical Data

- DFN1610 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



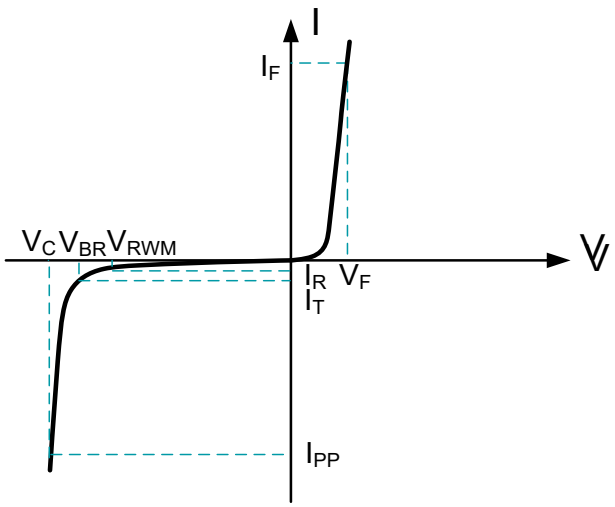
DFN1610-2L

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	1650	Watts
Peak Pulse Current (t_p =8/20μs) (note1)	I_{pp}	75	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{stg}	-55 to + 125	℃

Electrical Parameters (T=25℃)

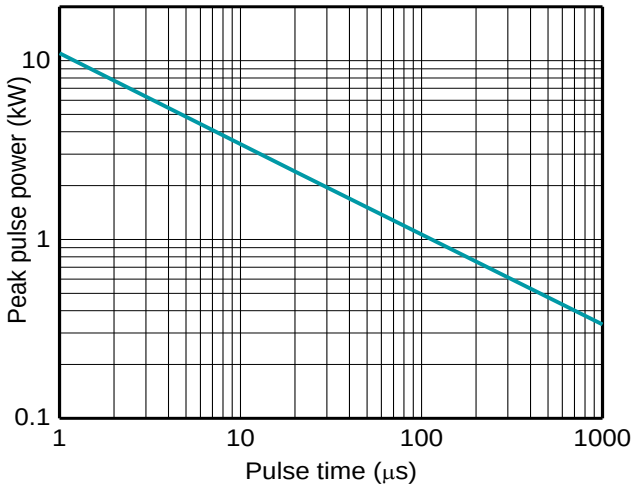
Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



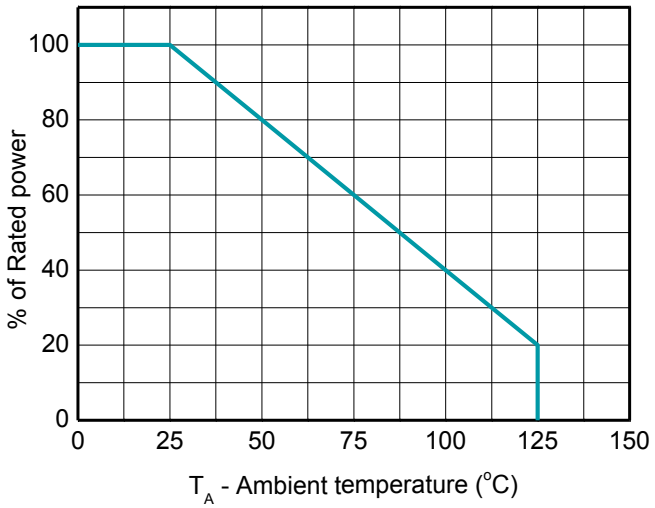
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				10	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	11			V
Reverse Leakage Current	I_R	V_{RWM}= 10 V,T=25℃			0.1	μA
Peak Pulse Current	I_{PP}	tp =8/20μs			75	A
Clamping Voltage	V_C	I_{PP}=75A,t_p=8/20μs		22		V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		600		pF

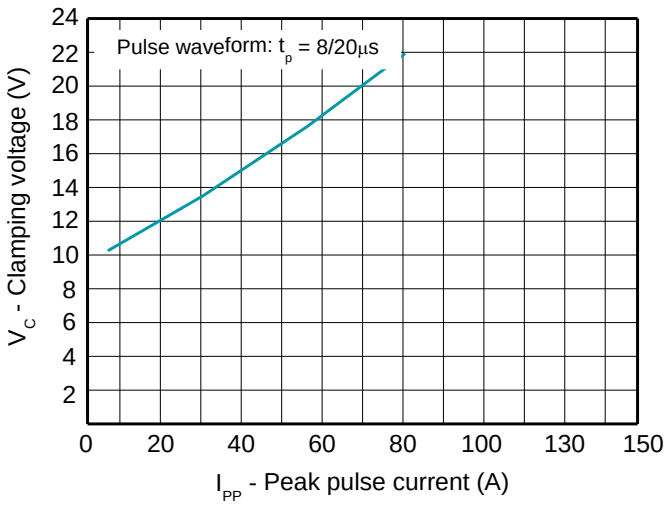
Typical Characteristics



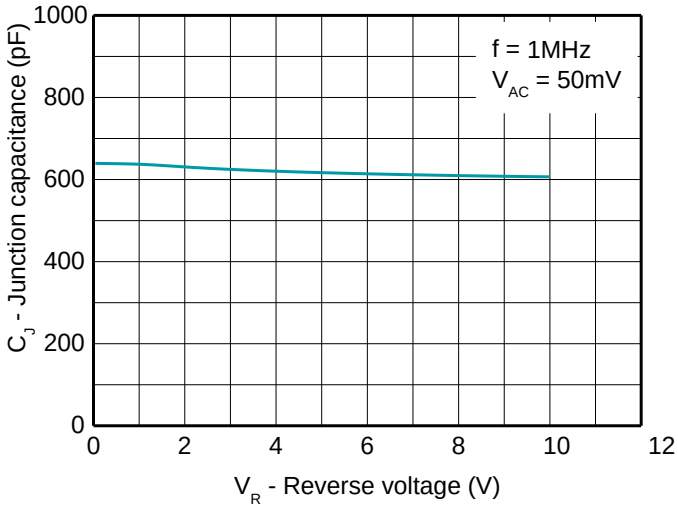
Non-repetitive peak pulse power vs. Pulse time



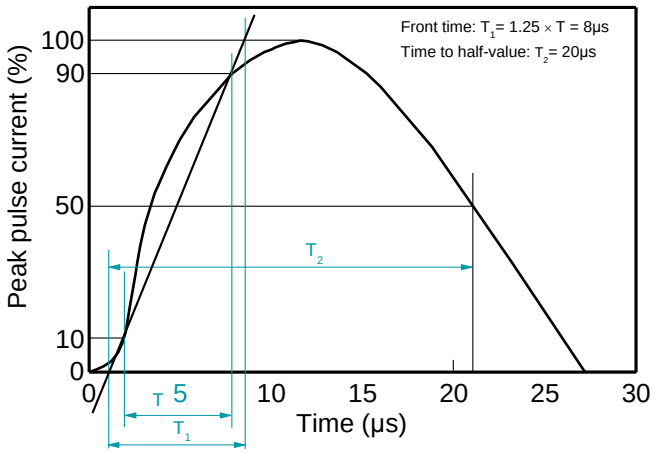
Power derating vs. Ambient temperature



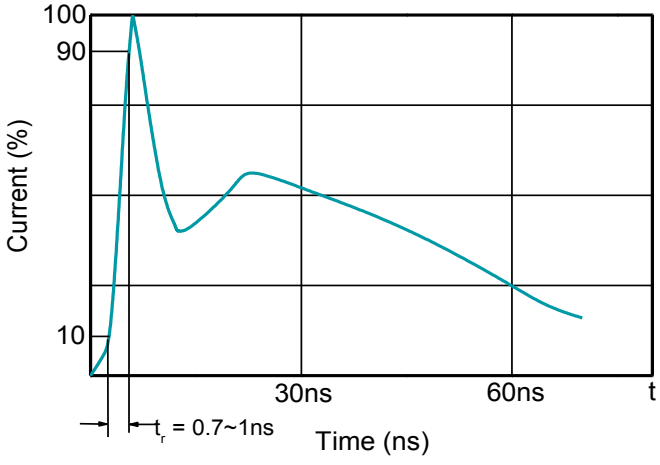
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage

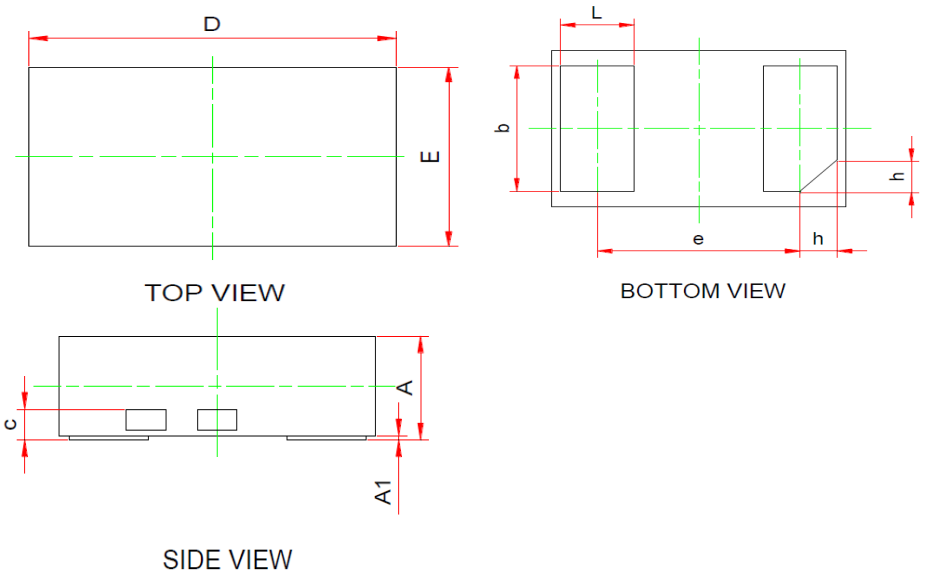


8/20μs waveform per IEC61000-4-5



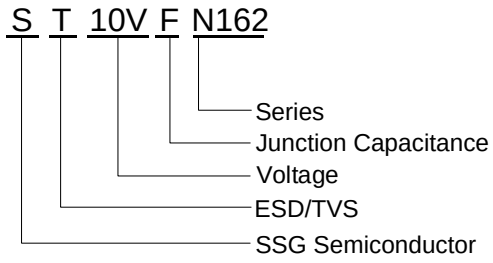
Contact discharge current waveform per IEC61000-4-2

Outline Drawing – DFN1610



Symbol	Dimensions In Millimeters		
	Min	Nom	Max
A	0.50	0.55	0.60
D	1.55	1.60	1.65
E	0.95	1.00	1.05
b	0.75	0.80	0.85
e		1.10	
h		0.20	
L	0.35	0.40	0.45
c		0.12	
A1	0.00	/	0.025

Part Numbering System



Device	Package	Shipping	MarKing	Parameter
ST10VFN162	DFN1610-2L	3000/Tape&Reel	10*	10 = Product Code P = Device Code