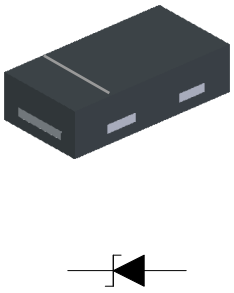
Transient Voltage Suppressor



DFN1610-2L

Marking Code	
ESD1610D18	WH

FEATURES

- 3200Watts 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)100A (8/20μs)

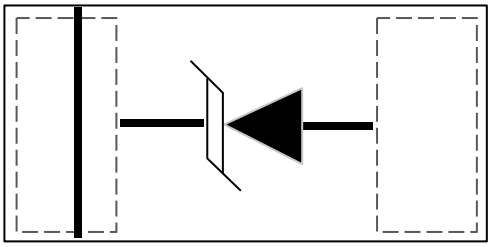
APPLICATIONS

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

MECHANICAL DATA

- Case:DFN1610-2L
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration

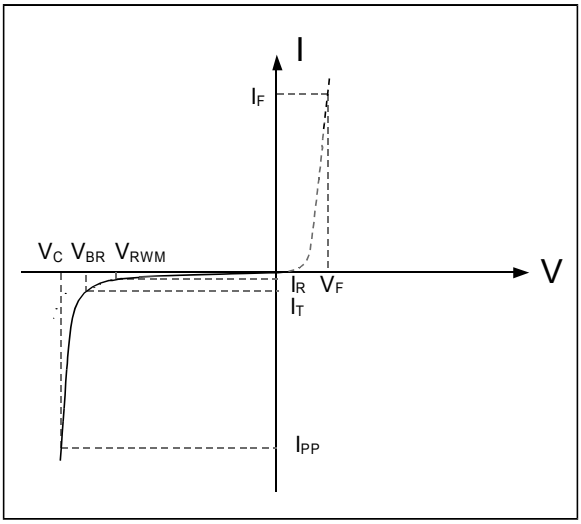


Absolute maximum ratings

Parameter	Symbol	Value	Unit
Peak pulse power (t_p = 8/20μs)	P_{pk}	3200	W
Peak pulse current (t_p = 8/20μs) (note1)	I_{PP}	100	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	
Lead Soldering Temperature (10seconds)	T_L	260	℃
Operation junction temperature	T_J	-55~125	℃
Storage temperature	T_{STG}	-55~125	℃

Electrical Parameters (T=25℃)

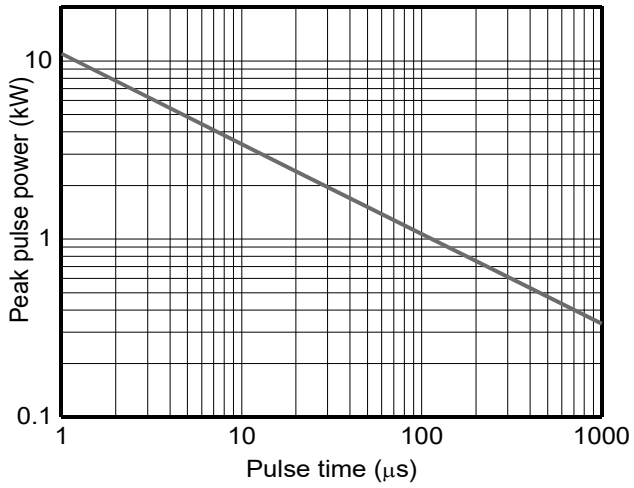
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



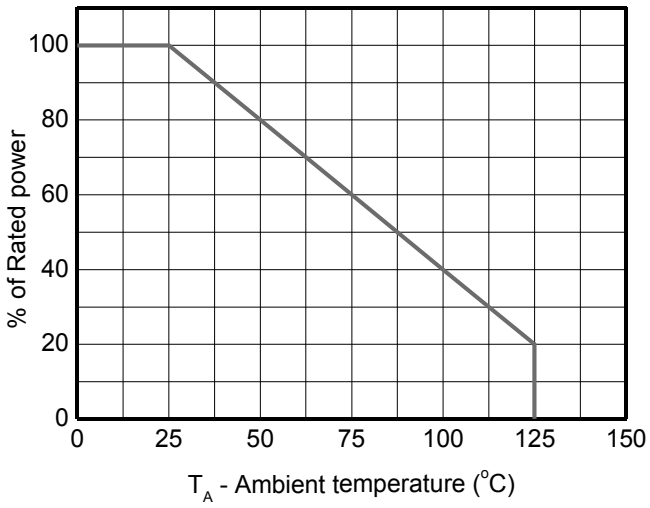
Electrical Characteristics

Parameter	Conditions	Symbols	Min	Typ	Max	Unit
Reverse Stand-Off Voltage		V_{RWM}			18	V
Reverse Breakdown Voltage	I_T=1mA	V_{BR}	19.5			V
Reverse Leakage Current	V_{RWM}=18V,T=25℃	I_R			1	μA
Peak Pulse Current	tp =8/20μs	I_{PP}			100	A
Clamping Voltage	I_{PP}=100A,t_p=8/20μs	V_C			32	V
Junction Capacitance	V_R = 0V, f = 1MHz	C_J		280		pF

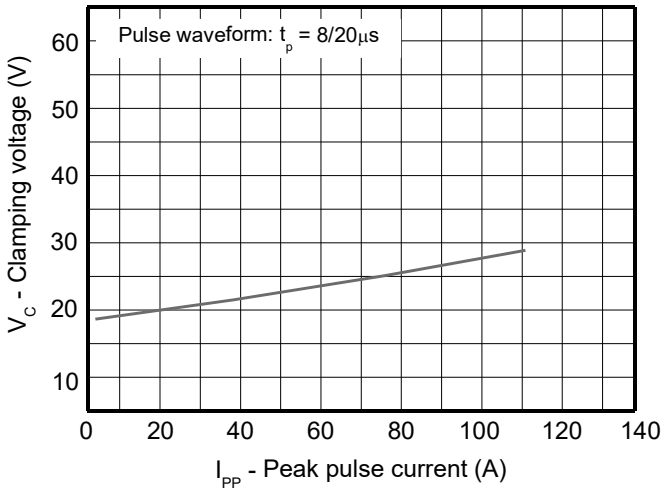
Typical Characteristics



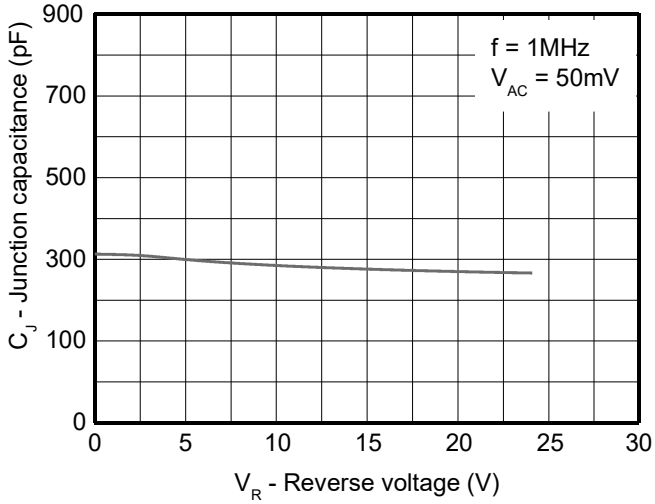
Non-repetitive peak pulse power vs. Pulse time



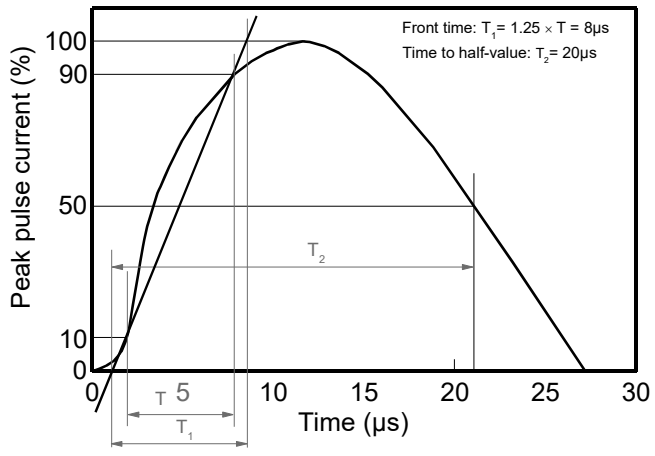
Power derating vs. Ambient temperature



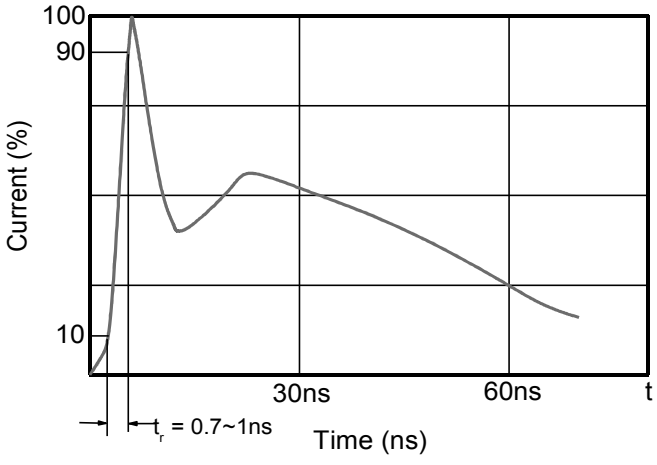
Clamping voltage vs. Peak pulse current



Capacitance vs. Reverse voltage



8/20μs waveform per IEC61000-4-5



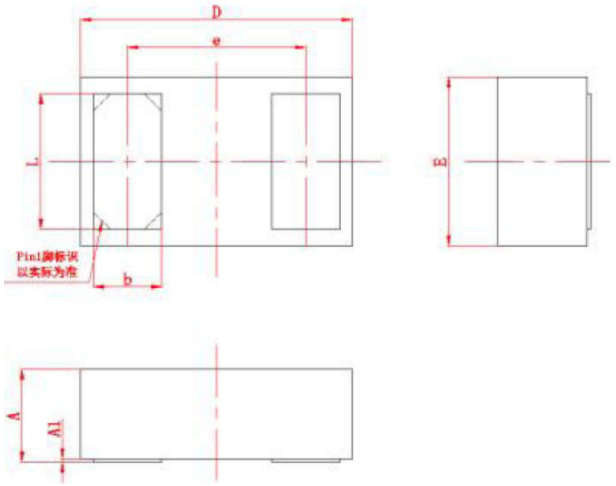
Contact discharge current waveform per IEC61000-4-2

Ordering information

Package	Packing Description	Packing Quantity
DFN1610-2L	Tape/Reel,7”reel	3000PCS/Reel 120000PCS/Carton

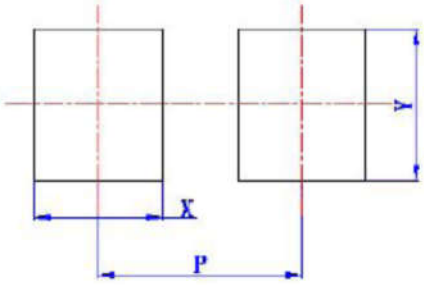
Package Dimensions

DFN1610-2L



Dim.	Millimeter(mm)		Inches	
	Min.	Max.	Min.	Max.
A	0.50	0.60	0.020	0.024
A1	-	0.05	-	0.002
D	1.50	1.70	0.060	0.067
E	0.90	1.10	0.035	0.043
e	Typ1.05		Typ0.041	
b	0.35	0.45	0.014	0.018
L	0.75	0.95	0.030	0.037

The recommended mounting pad size



Dim.	Millimeter(mm)
	TYP
X	0.62
Y	1.00
P	1.20

Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices),YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website https://www.yfwdiode.com, or consult YFW sales office for further assistance.