

DFN1610-2L Plastic-Encapsulate ESD Protection Diodes

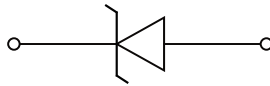
Features

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air): $\pm 30\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 115A

Applications

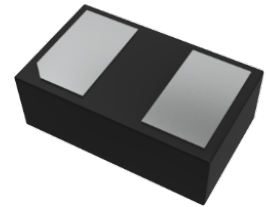
- Mobile Phone, Digital cameras
- Battery Protection
- Power Line Protection
- Vbat pin for Mobile Devices
- Hand Held Portable Applications

Function Diagram



Reverse Working Voltage
7.0 V Max.
High Capacitance
900 pF Max.

DFN1610-2L

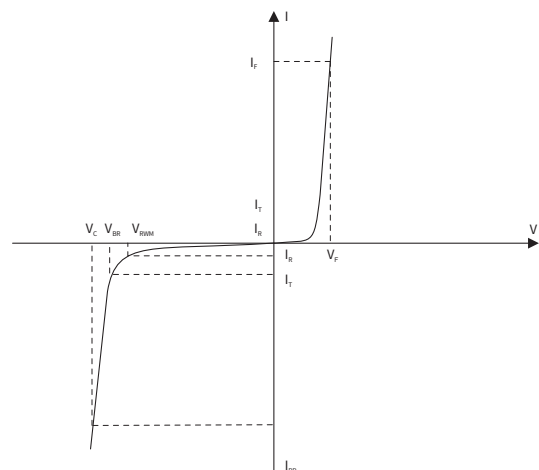


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	± 30	KV
		ESD per IEC 61000-4-2(Contact)	± 30	KV
P _{PP}	Peak Pulse Power	tp = 8/20 μs	2300	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	115	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

Electrical Parameter

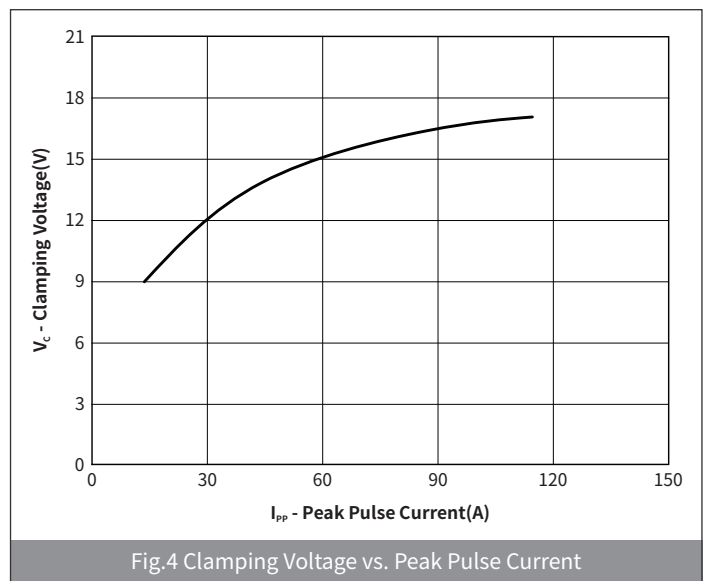
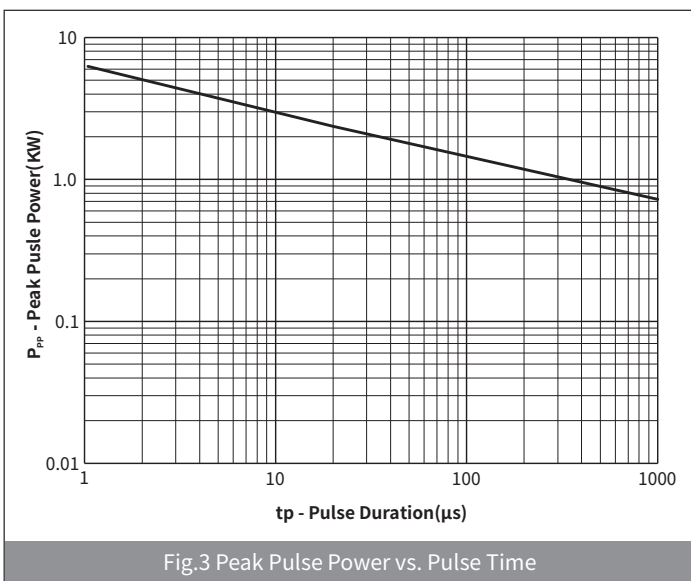
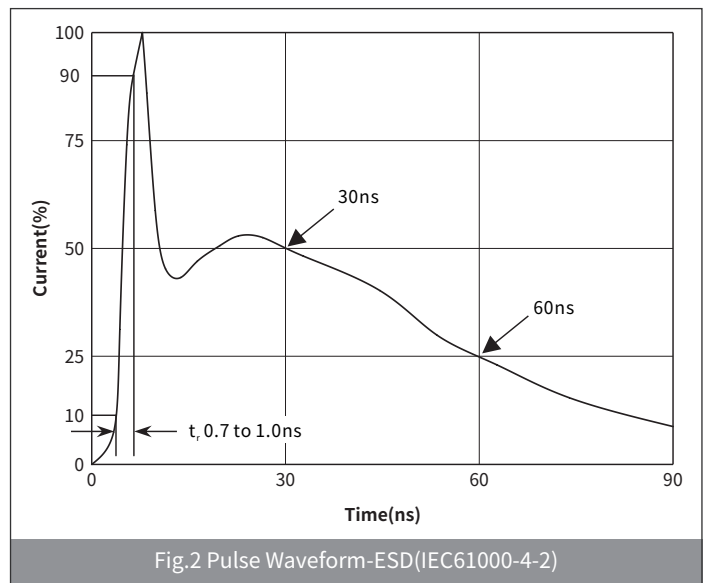
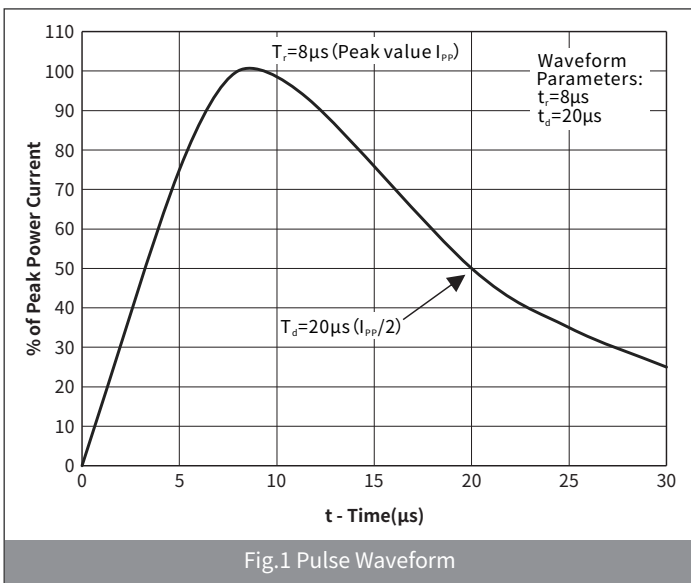
SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current
V _F	Forward Voltage @I _F



● **Electrical Characteristics** (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^\circ\text{C}$	—	—	7.0	V
Breakdown Voltage	V_{BR}	$I_T=1.0\text{mA}, T_a=25^\circ\text{C}$	7.5	—	10	V
Reverse Leakage Current	I_R	$V_{RWM}=7.0\text{V}, T_a=25^\circ\text{C}$	—	—	0.5	μA
Clamping Voltage	V_C	$I_{PP}=10\text{A}, t_p=8/20\mu\text{s}$	—	—	10	V
		$I_{PP}=115\text{A}, t_p=8/20\mu\text{s}$	—	—	20	V
Junction Capacitance	C_J	$V_{RWM}=0\text{V}, f=1\text{MHz}$	—	—	900	pF

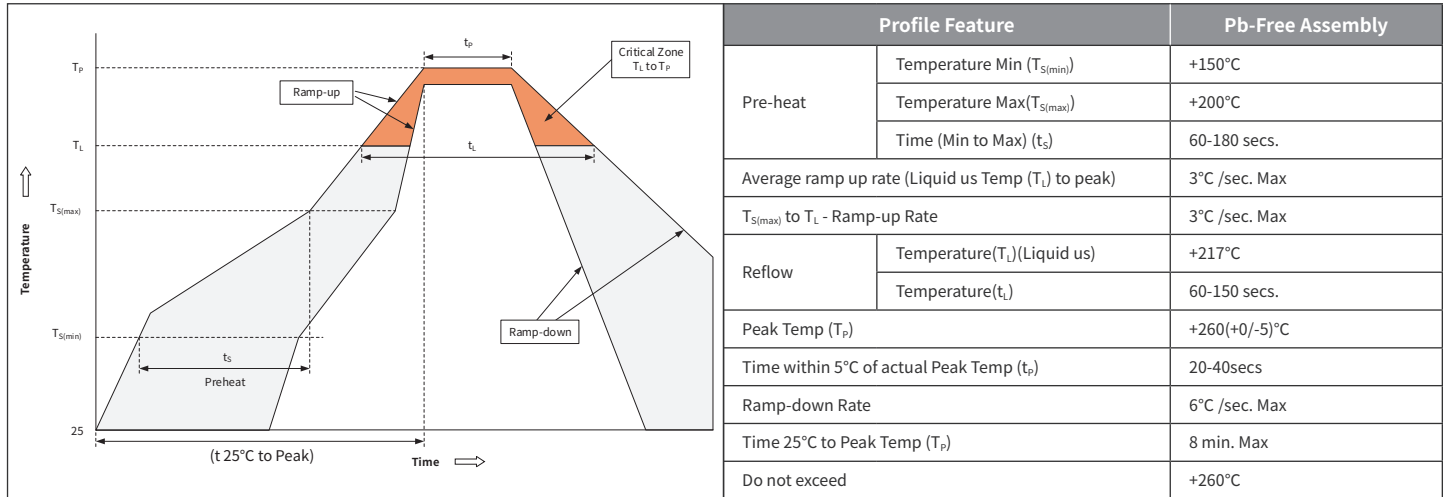
● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



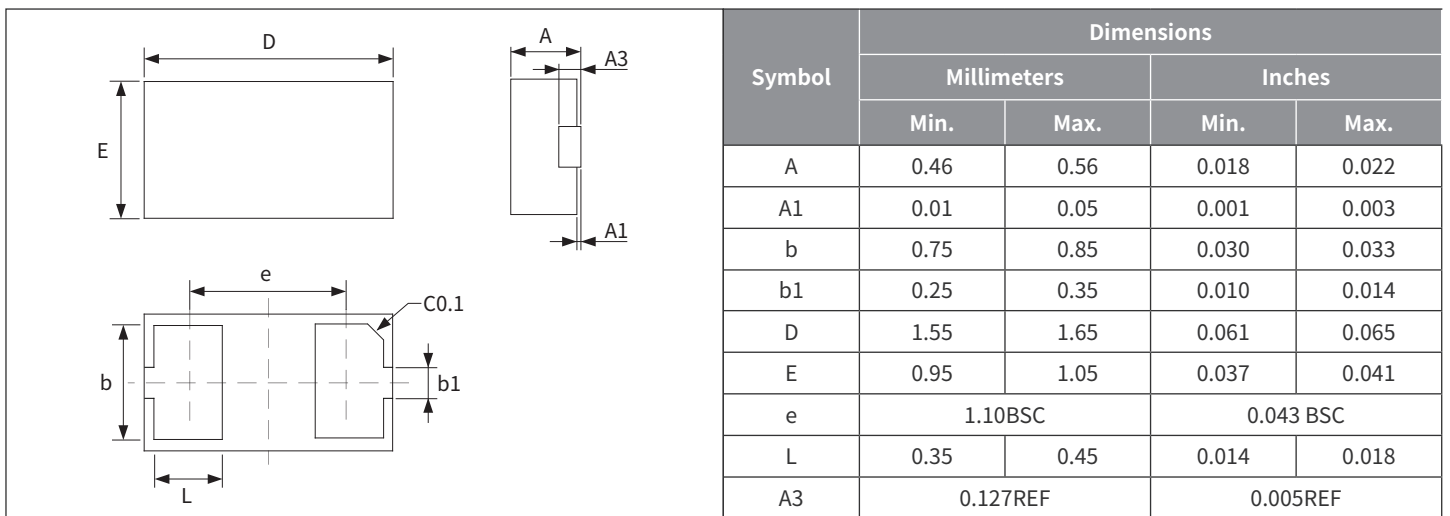
Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H7VH16U	DFN1610-2L	1.575×0.975×0.485	7" REEL	3000

Recommended Soldering Conditions



Package Outline Dimensions (DFN1610-2L)



Suggested Pad Layout

