

DFN1006-2L Plastic-Encapsulate ESD Protection Diodes

Features

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air): $\pm 25\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 25\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 5A

Reverse Working Voltage
5.0 V Max.
Low capacitance
15pF(Typ.)

Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds
- Personal Digital Assistants
- Keypads, Side Keys, LCD Displays
- Audio Players, Peripherals
- Portable Instrumentation

Function Diagram

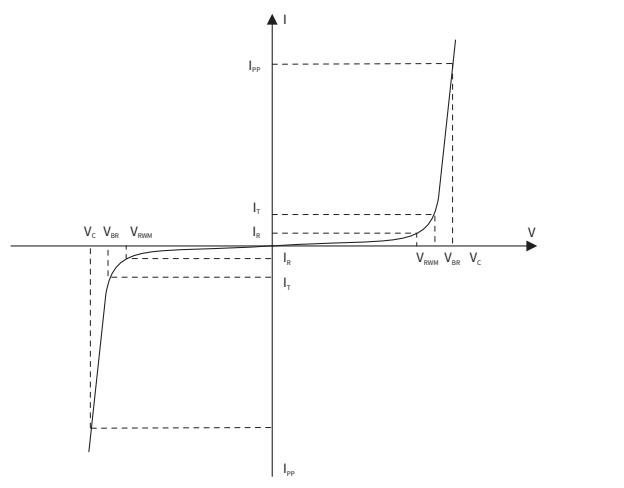


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	± 25	kV
		ESD per IEC 61000-4-2(Contact)	± 25	kV
P_{PP}	Peak Pulse Power	$t_p = 8/20 \mu\text{s}$	50	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu\text{s}$	5.0	A
T_J	Operating JunctionTemperature Range	—	-55 to +125	°C
T_{STG}	Operating JunctionTemperature Range	—	-55 to +125	°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 @ $V_R=0\text{V}, f=1\text{MHz}$
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°C	—	—	5.0	V
Breakdown Voltage	V _{BR}	I _T =1.0mA, T _a =25°C	5.6	6.5	8.0	V
Reverse Leakage Current	I _R	V _{RWM} =5.0V; T _A =25°C	—	—	0.1	μA
Clamping Voltage	V _C	I _{PP} =1.0A, t _p =8/20μs	—	—	8.0	V
		I _{PP} =5.0A, t _p =8/20μs	—	—	10.0	
		V _R =0V, f=1MHz	—	15	18	pF

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

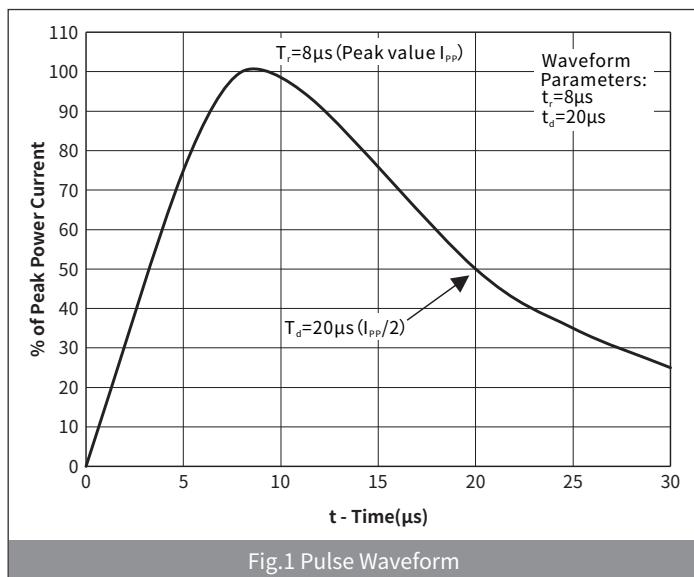


Fig.1 Pulse Waveform

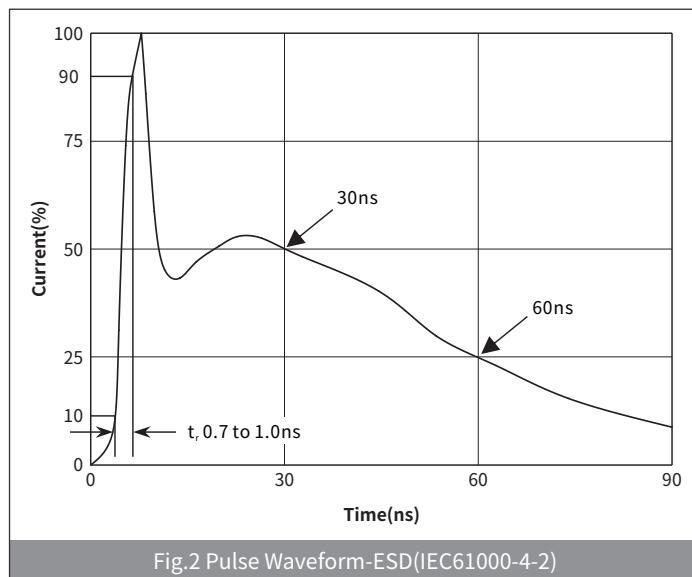


Fig.2 Pulse Waveform-ESD(IEC61000-4-2)

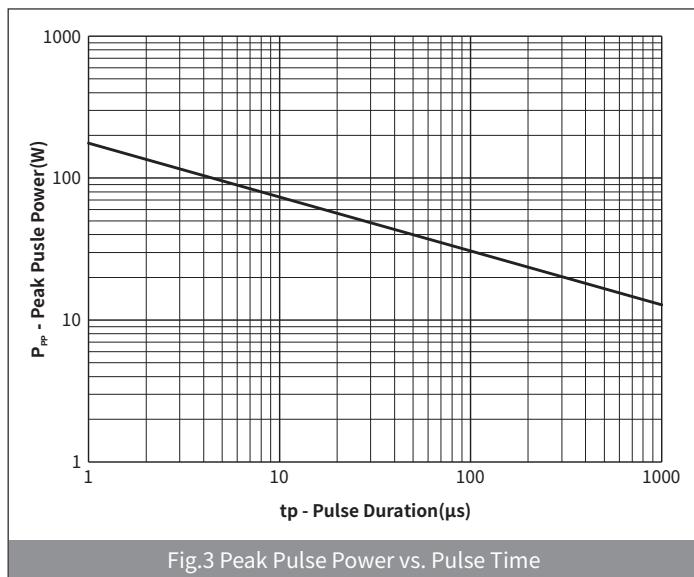


Fig.3 Peak Pulse Power vs. Pulse Time

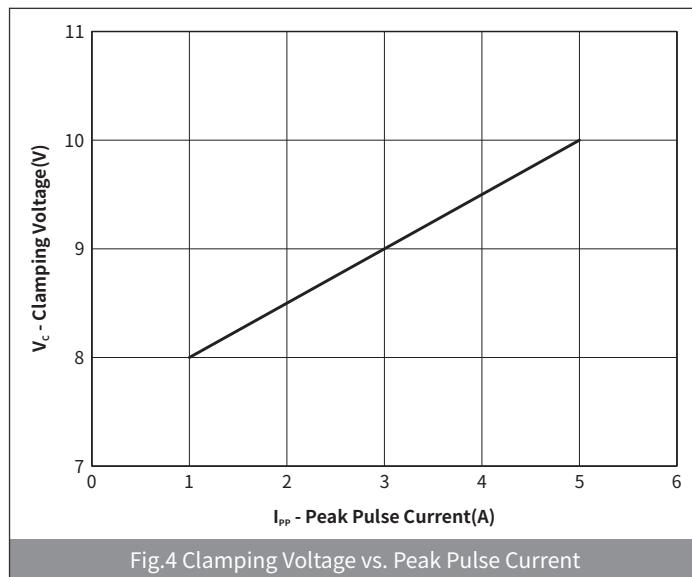
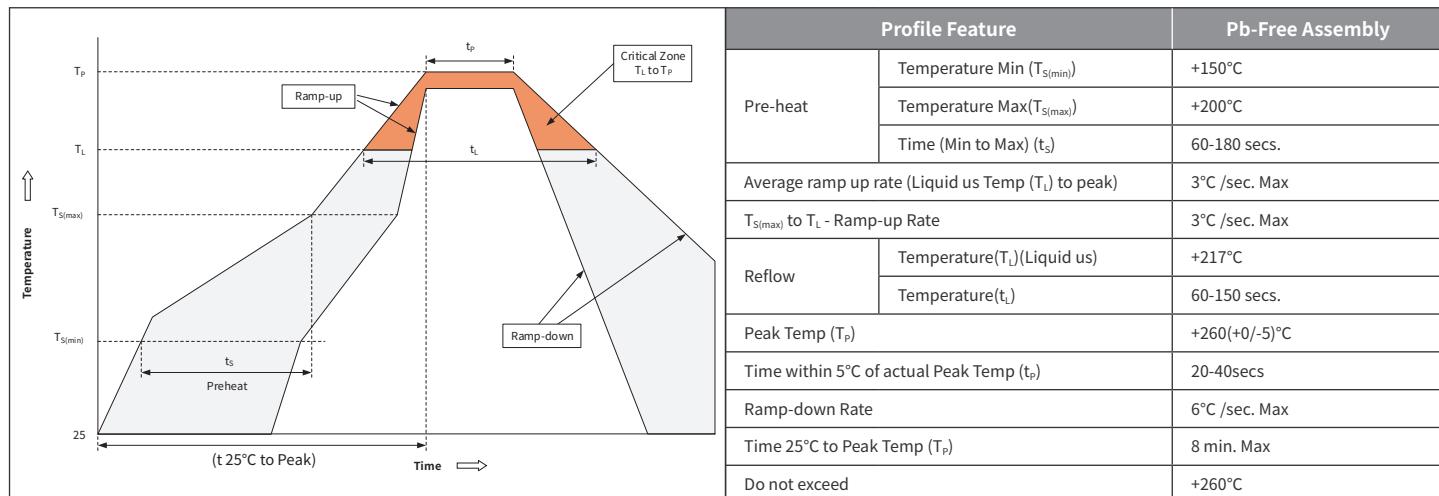


Fig.4 Clamping Voltage vs. Peak Pulse Current

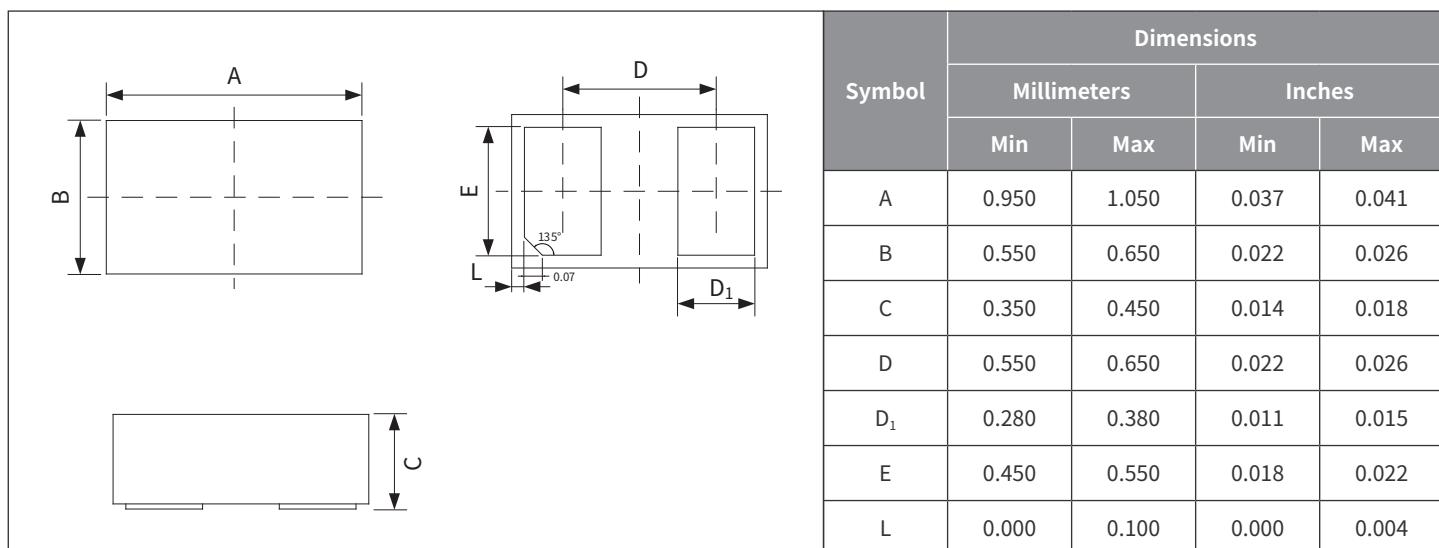
● Ordering Information

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H5VL10B	DFN1006-2L	1.00×0.60×0.37	7" REEL	10,000

● Recommended Soldering Conditions



● Package Outline Dimensions (DFN1006-2L)



● Suggested Pad Layout

