

## DFN0603-2L Plastic-Encapsulate ESD Protection Diodes

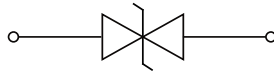
### Features

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air):  $\pm 25\text{kV}$
- IEC 61000-4-2 (ESD Contact):  $\pm 20\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 $\mu\text{s}$ ): 3.5A

### Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players
- Industrial Equipment

### Function Diagram



**Reverse Working Voltage**  
12V Max.  
**Small capacitance**  
3.5pF(Max.)

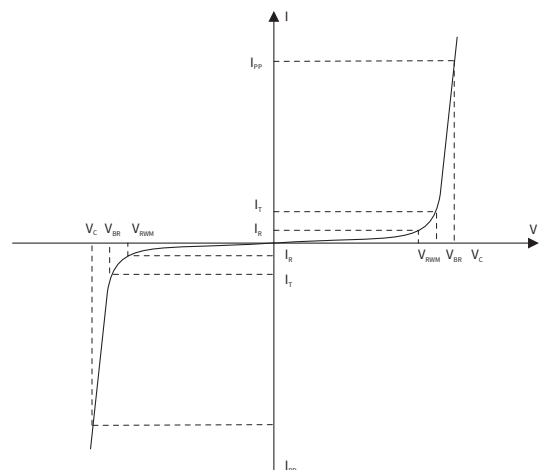


### Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>ESD</sub>	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2( Air )	$\pm 25$	KV
		ESD per IEC 61000-4-2( Contact)	$\pm 20$	KV
P <sub>PP</sub>	Peak Pulse Power	tp = 8/20 $\mu\text{s}$	85	W
I <sub>PP</sub>	Rated Peak Pulse Current	tp = 8/20 $\mu\text{s}$	3.5	A
T <sub>J</sub>	Operating Junction Temperature Range	—	-55 to +125	°C
T <sub>STG</sub>	Operating Junction Temperature Range	—	-55 to +125	°C

### Electrical Parameter

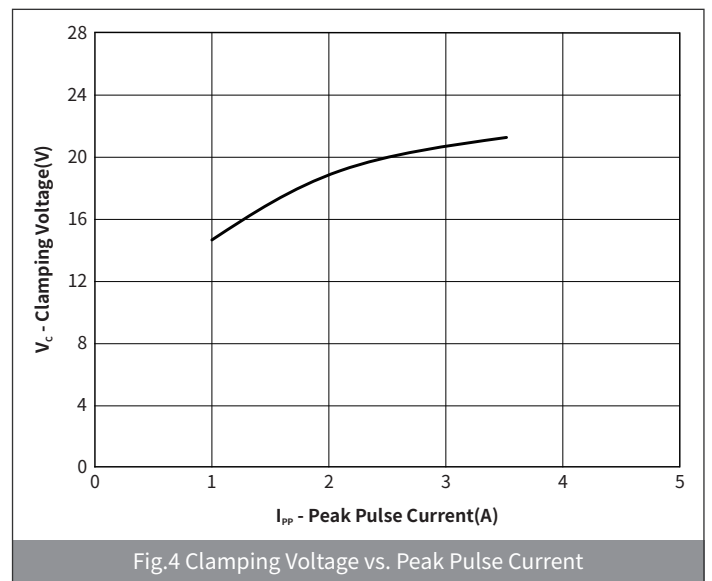
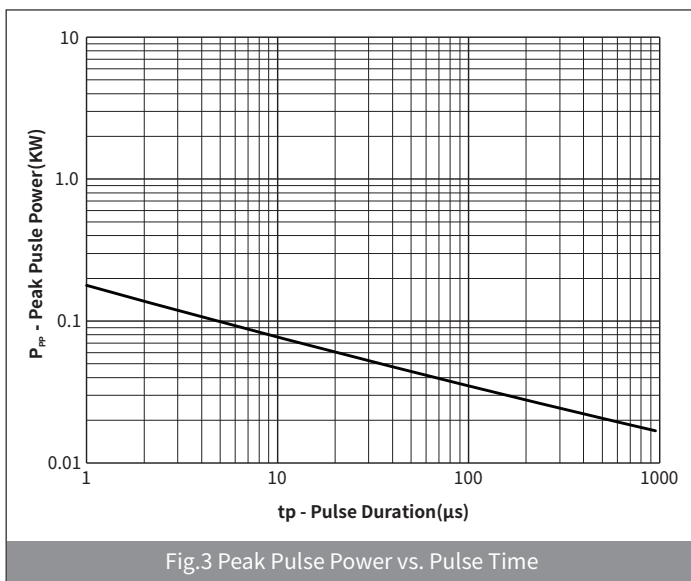
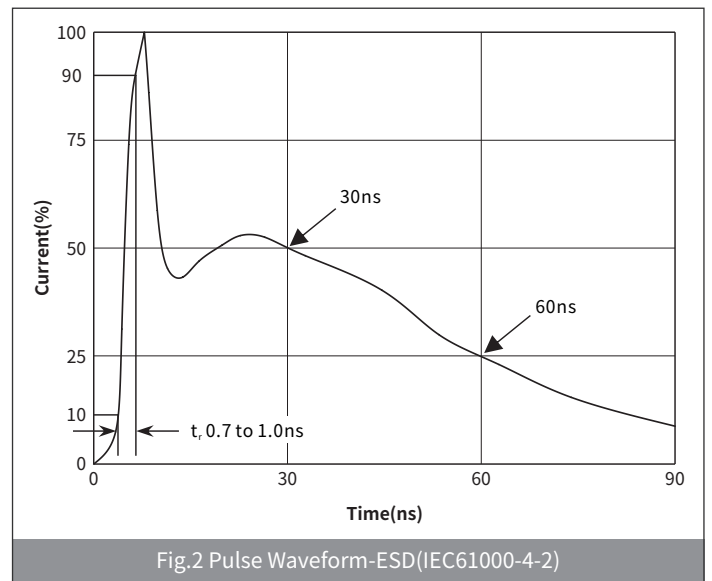
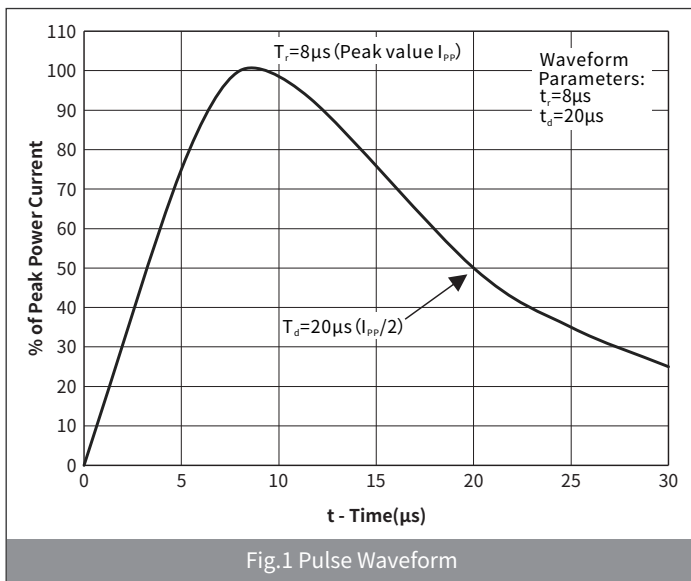
SYMBOL	PARAMETER
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>PP</sub>	Peak Pulse Current
I <sub>T</sub>	Test Current
I <sub>R</sub>	Reverse Leakage Current @ VRWM
V <sub>RWM</sub>	Peak Reverse Working Voltage
P <sub>PP</sub>	Peak Pulse Power Dissipation
C <sub>J</sub>	Junction Capacitance @ V <sub>R</sub> =0V, f=1MHz
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>



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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	$V_{RWM}$	$T_a=25^\circ\text{C}$	—	—	12	V
Breakdown Voltage	$V_{BR}$	$I_R=1.0\text{mA}, T_a=25^\circ\text{C}$	12.6	—	16.5	V
Reverse Leakage Current	$I_R$	$V_R=12\text{V}, T_a=25^\circ\text{C}$	—	—	0.5	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1.0\text{A}, t_p=8/20\mu\text{s}$	—	—	16	V
		$I_{PP}=3.5\text{A}, t_p=8/20\mu\text{s}$	—	—	24	
Junction Capacitance	$C_J$	$V_{RWM}=0\text{V}, f=1\text{MHz}$	—	—	3.5	pF

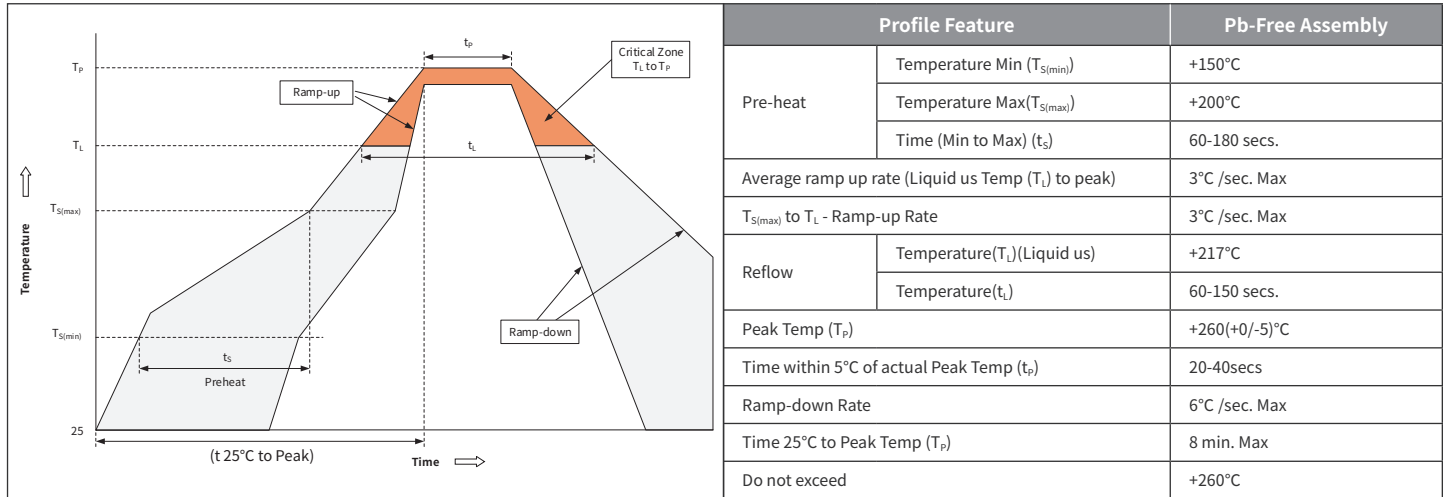
## Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



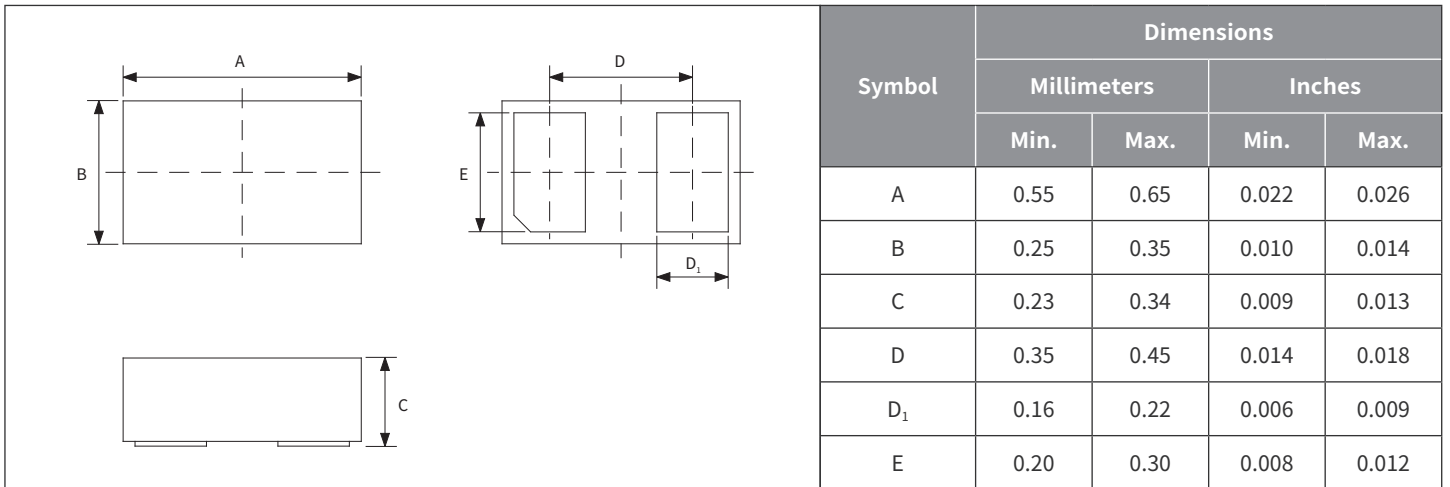
## Ordering Information

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H12VS06B	DFN0603-2L	0.6×0.30×0.30	7" REEL	15,000

## Recommended Soldering Conditions



## Package Outline Dimensions (DFN0603-2L)



## Suggested Pad Layout

