

DFN2510-10L Plastic-Encapsulate ESD Protection Diodes

Features

- Low leakage current
- DFN2510-10L surface mount package
- IEC 61000-4-2 (ESD Air): ±15kV
- IEC 61000-4-2 (ESD Contact): ±8kV
- IEC 61000-4-5 (Lightning 8/20μs): 5A

Applications

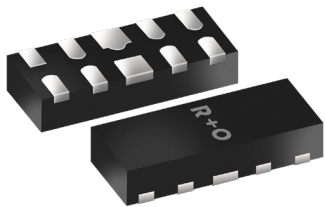
- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players, Industrial Equipment
- Automotive

Function Diagram



Reverse Working Voltage
5V Max.
Ultra Small Capacitance
 $C_{I/O-GND}=0.8\text{pF(Max.)}$
 $C_{I/O-I/O}=0.4\text{pF(Max.)}$

DFN2510-10L



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)	±15	KV
		ESD per IEC 61000-4-2(Contact)	±8	KV
P_{PP}	Peak Pulse Power	$t_p = 8/20 \mu s$	75	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu s$	5	A
T_J	Operating JunctionTemperature Range	—	-55 to +125	°C
T_{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

Electrical Parameter

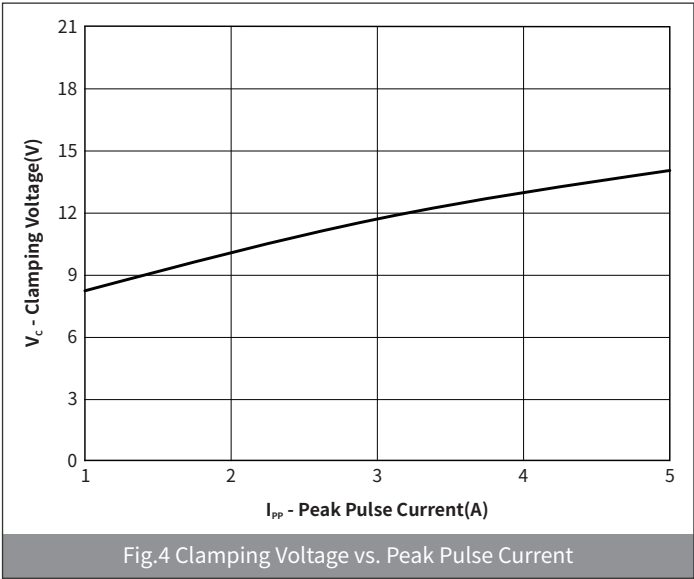
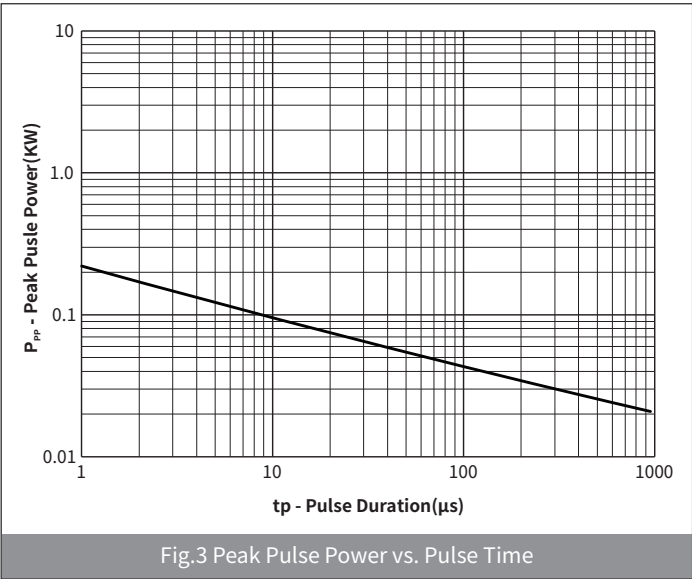
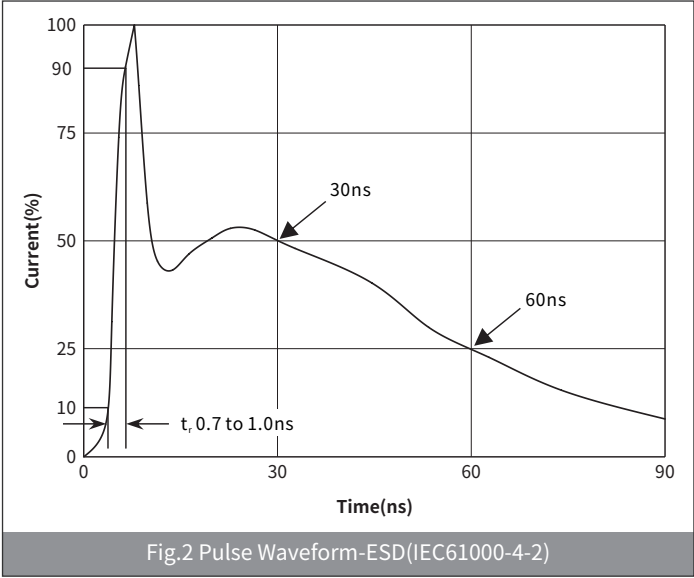
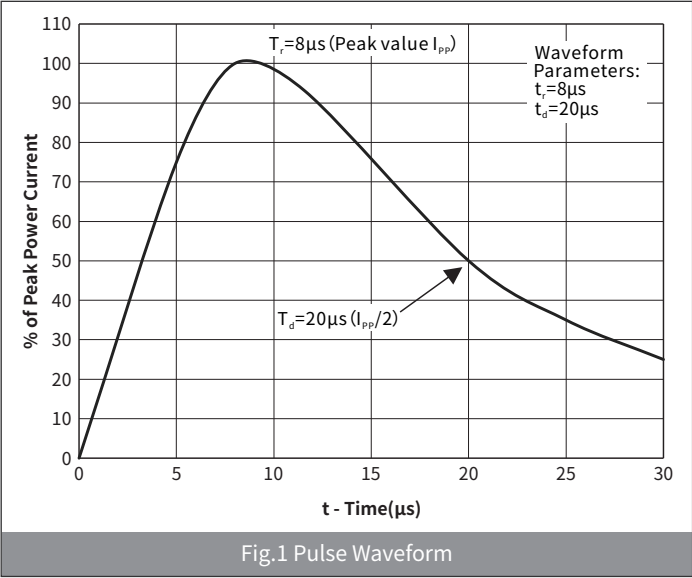
SYMBOL	PARAMETER
V_C	Clamping Voltage @ I_{PP}
V_{BR}	Breakdown Voltage @ I_T
I_{PP}	Peak Pulse Current
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Peak Reverse Working Voltage
P_{PP}	Peak Pulse Power Dissipation
C_J	Junction Capacitance @ $V_R=0V, f=1\text{MHz}$
I_F	Forward Current
V_F	Forward Voltage @ I_F

The graph shows the current-voltage (I-V) characteristics of the diode. The forward curve shows the forward current I_F versus forward voltage V_F . The reverse curve shows the reverse leakage current I_R versus reverse voltage V_R . Key points on the graph include the clamping voltage V_C at peak pulse current I_{PP} , the breakdown voltage V_{BR} at test current I_T , and the peak reverse working voltage V_{RWM} at reverse leakage current I_R .

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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	5	V
Breakdown Voltage	V_{BR}	$I_T=1mA, T_a=25^{\circ}C$	6	—	10	V
Reverse Leakage Current	I_R	$V_{RWM}=5.0V, T_a=25^{\circ}C$	—	—	1.0	μA
Clamping Voltage	V_C	$I_{pp}=1A, t_p=8/20\mu s, \text{any I/O pin to ground}$	—	—	10	V
		$I_{pp}=5A, t_p=8/20\mu s, \text{any I/O pin to ground}$	—	—	15	
Junction Capacitance	C_J	$V_R=0V, f=1MHz, \text{I/O to I/O}$	—	0.3	0.4	pF
		$V_R=0V, f=1MHz, \text{I/O to GND}$	—	—	0.8	

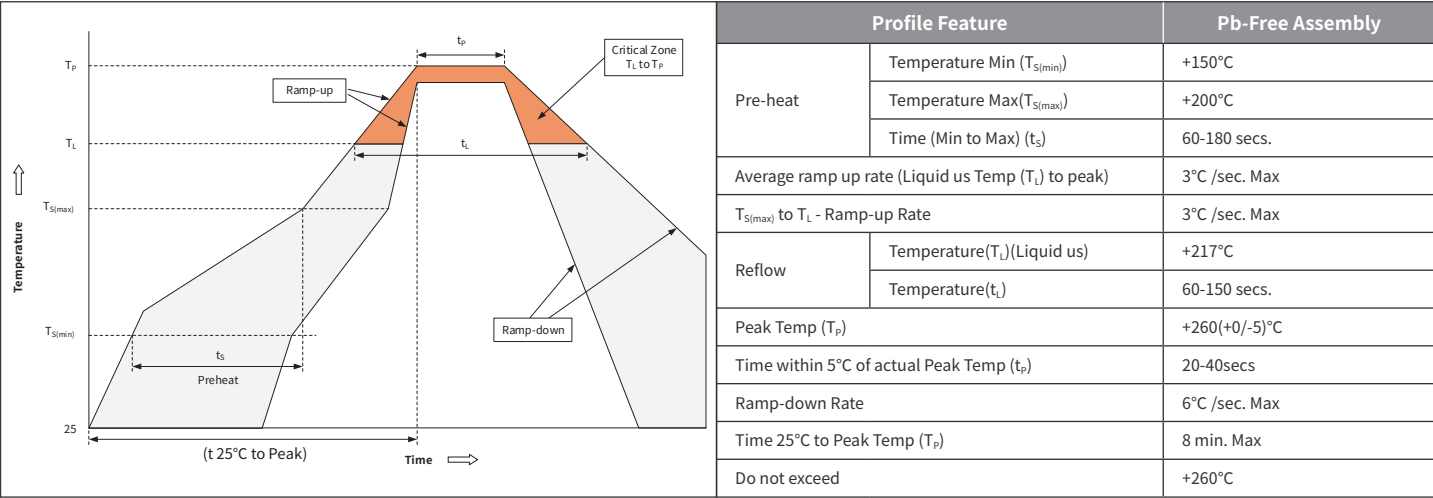
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



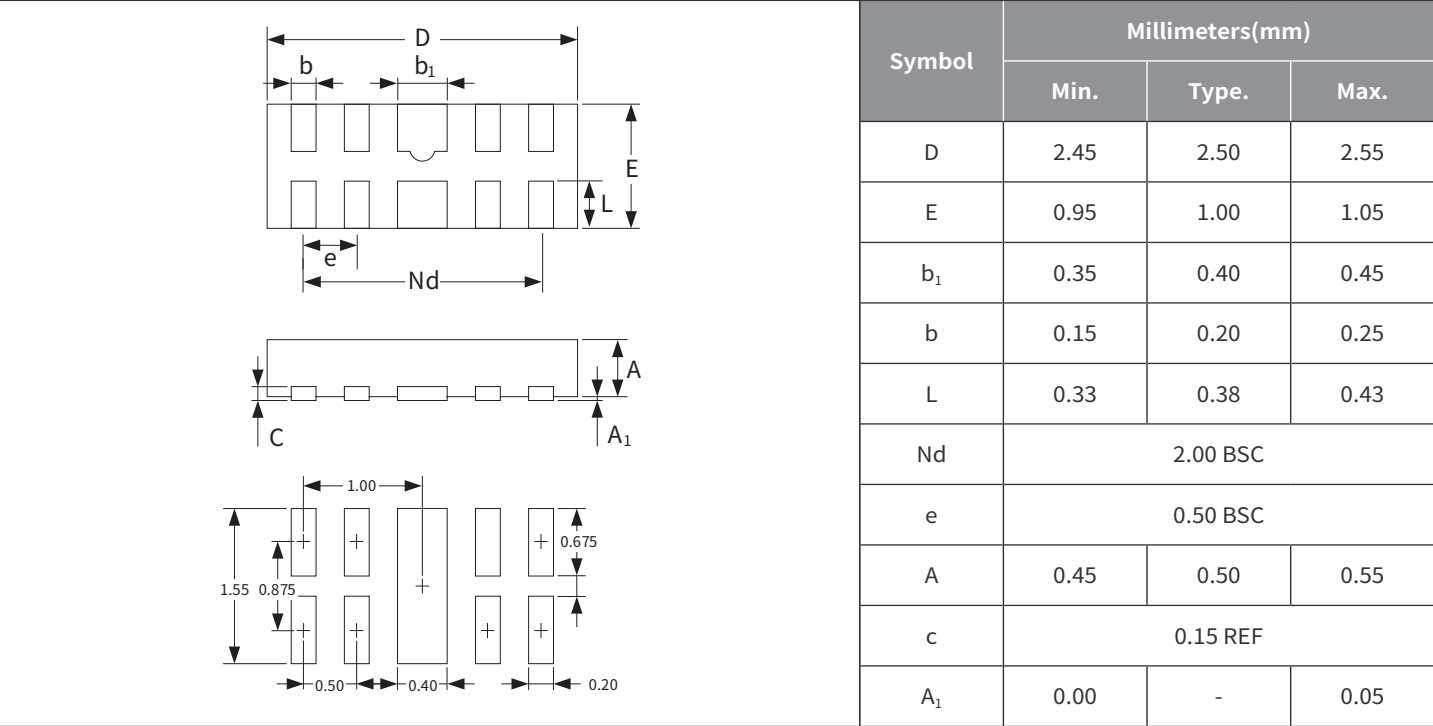
● Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H5VU25UC	DFN2510-10L	2.50×1.00×0.50	7" REEL	3000

● Recommended Soldering Conditions



● Package Outline Dimensions (DFN2510-10L)



Note :
This soldering footprint is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.