

DFN2510-10 Plastic-Encapsulate ESD Protection Diodes

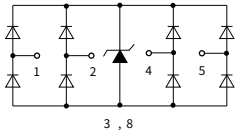
Features

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air): ±15kV
- IEC 61000-4-2 (ESD Contact): ±10kV
- IEC 61000-4-5 (Lightning 8/20μs): 4.5A

Applications

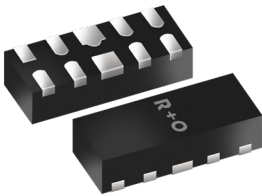
- USB 3.0 and USB3.1
- HDMI2.0,Displayport1.3,eSATA
- Unified Display interface
- Digital Display interface
- High speed serial interface

Function Diagram



Reverse Working Voltage
3.3V Max.
Low capacitance
0.3pF(Typ.)

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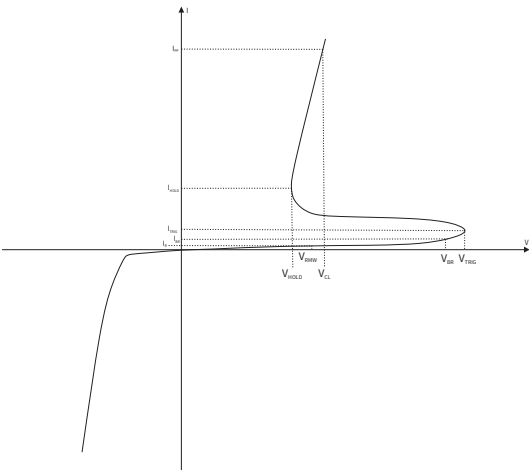


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
VESD	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	±15	KV
		ESD per IEC 61000-4-2(Contact)	±10	KV
P _{PP}	Peak Pulse Power	tp = 8/20 μs	30	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	4.5	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Storage Temperature Range	—	-55 to +125	°C

Electrical Parameter

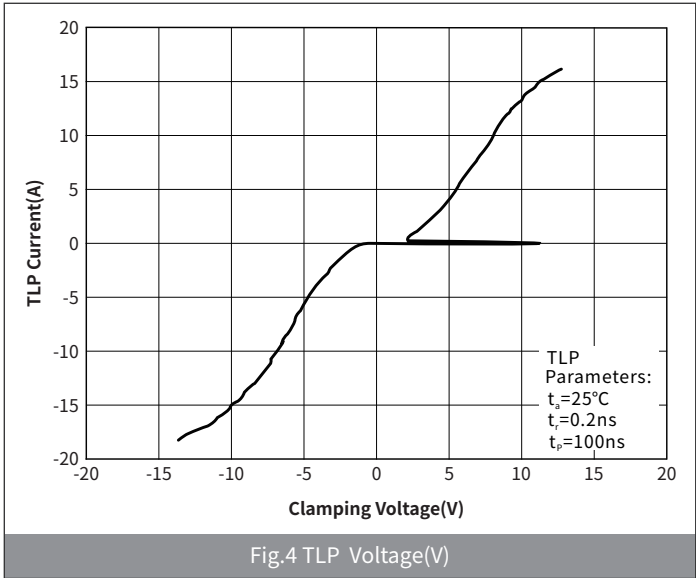
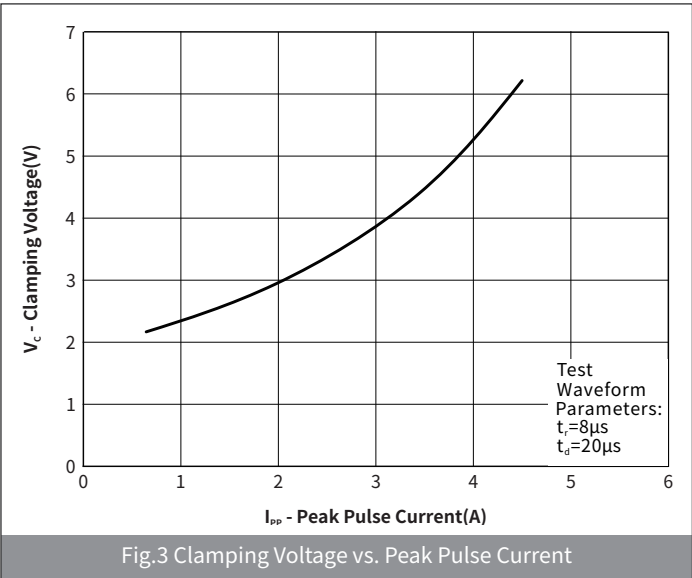
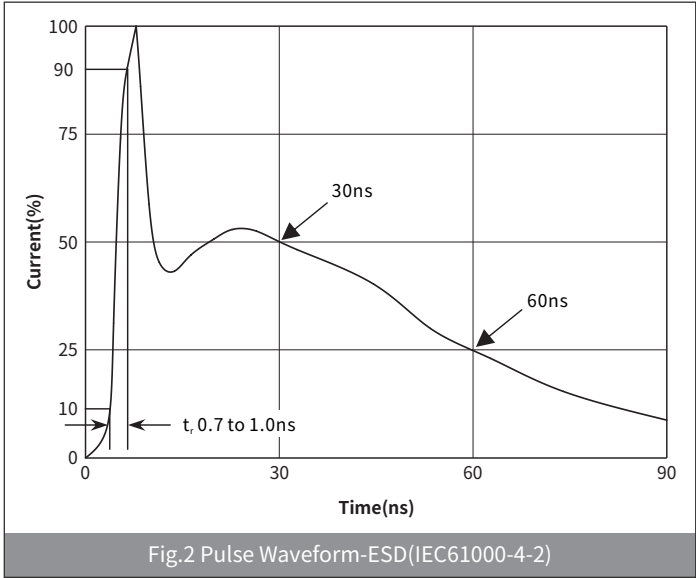
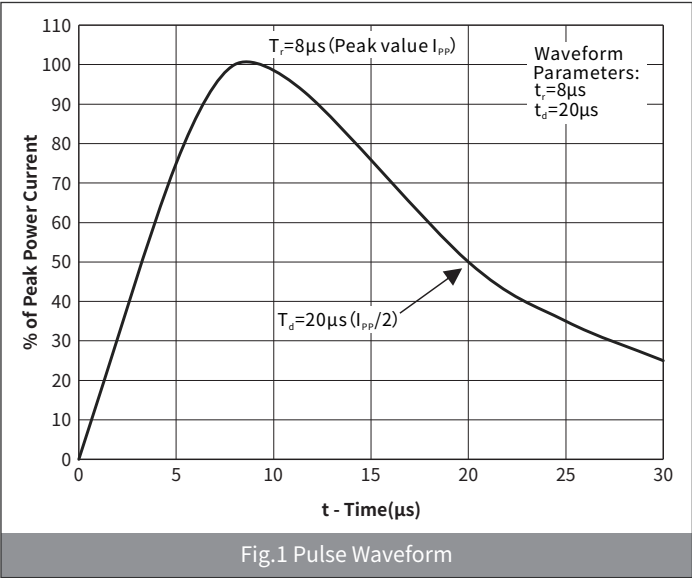
SYMBOL	PARAMETER
I _{PP}	Peak Pulse Current @8/20μs
V _C	Clamping Voltage @ I _{PP}
I _{BR} / I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
V _{RWM}	Peak Reverse Working Voltage
I _R	Reverse Leakage Current @ V _{RWM}
I _{TRIG}	Reverse Trigger Current
V _{TRIG}	Reverse Trigger Voltage
I _{HOLD}	Reverse Holding Current
V _{HOLD}	Reverse Holding Voltage
P _{PP}	Peak Pulse Power Dissipation



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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	3.3	V
Breakdown Voltage	V_{BR}	$I_T=1mA, T_a=25^{\circ}C$	6.0	—	—	V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V, T_a=25^{\circ}C$	—	—	0.2	μA
Dynamic Resistance	R_{DYN}	$TLP=0.2/100ns$	—	0.65	—	Ω
TLP Clamping Voltage	$V_C@TLP$	$I_{TLP}=4A, T_p=100ns, T_r=0.2ns;$	—	5.0	—	V
Clamping Voltage	V_C	$I_{PP}=4.5A, t_p=8/20\mu s$	—	—	7.0	V
Junction Capacitance	C_J	$V_{RWM}=1.5V, f=1MHz, \text{Between I/O Pins}$	—	0.3	0.45	pF
Junction Capacitance	C_J	$V_{RWM}=1.5V, f=1MHz, \text{I/O to GND}$	—	0.6	1.0	pF

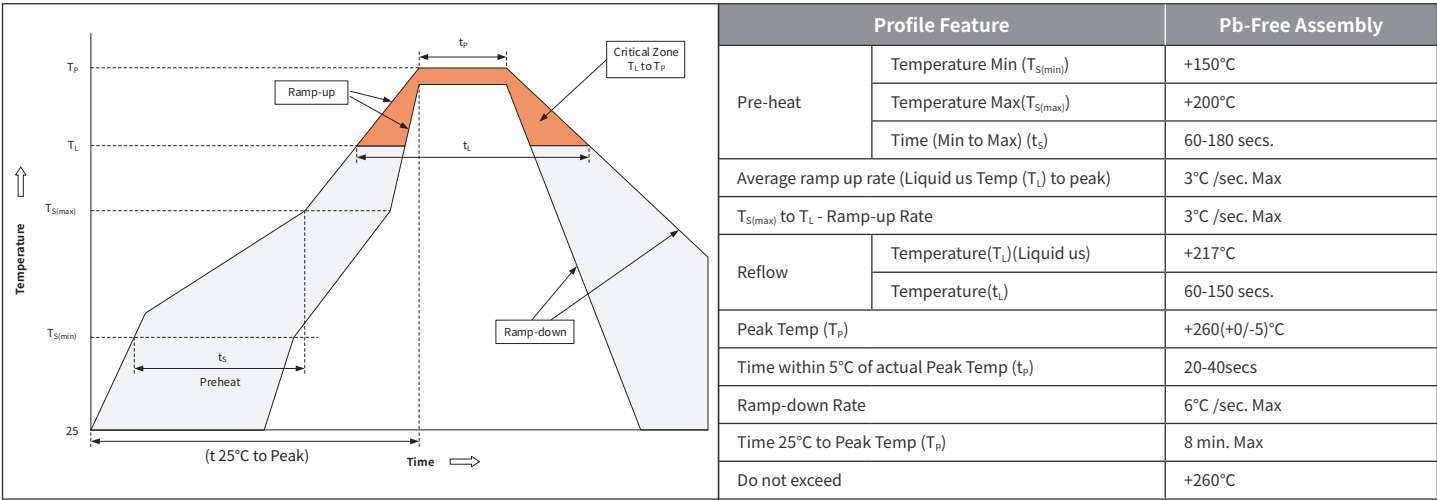
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



● Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H3V3L25US	DFN2510	2.50×1.00×0.50	7" REEL	3,000

● Recommended Soldering Conditions



● Package Outline Dimensions (DFN2510)

