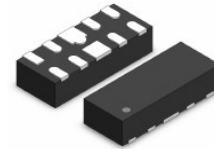


4 Channel Ultra-Low Capacitance ESD Protection Diode

1. Features

- Ultra-Low capacitance:0.5pF(typ.)
- Reverse stand-off voltage:5V
- IEC 61000-4-2 (Air): ±20KV
IEC 61000-4-2 (Contact): ±15KV

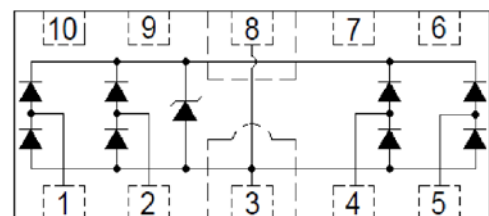
2. Pin Description



3. Applications

- USB 3.0, USB 2.0
- HDMI 1.3/1.4, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- High speed serial interfaces

4. Schematic Diagram



Top View

5. Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
SLESD5304D	DFN2510	2.50x1.00x0.50		3,000

6. Limiting Values($T_A = 25\text{ °C}$, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
V_{ESD}	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±15	kV
		IEC 61000-4-2; Air Discharge	-	±20	kV
I_{PPM}	Rated Peak Pulse Current	$t_p = 8/20\ \mu s$	-	5	A
T_A	Ambient Temperature Range	-	-55	125	°C
T_{stg}	Storage Temperature Range	-	-55	150	°C

7. Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V_{RWM}	Reverse Working Voltage	$T_A = 25^\circ\text{C}$	-	-	5	V
V_{BR}	Breakdown Voltage	$I_R = 1\text{ mA}; T_A = 25^\circ\text{C}$	6	-	-	V
I_R	Reverse Leakage Current	$V_{RWM} = 5\text{V}; T_A = 25^\circ\text{C}$	-	-	1	μA
V_C	Clamping Voltage	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$, Any I/O to GND, Positive	-	8.5	12	V
		$I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$, Any I/O to GND, Positive	-	12	16	V
C_L	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{ MHz}$, I/O to I/O	-	0.3	0.4	pF
		$V_R = 0\text{V}, f = 1\text{ MHz}$, I/O to GND	-	0.5	0.8	pF

8. Typical Characteristics

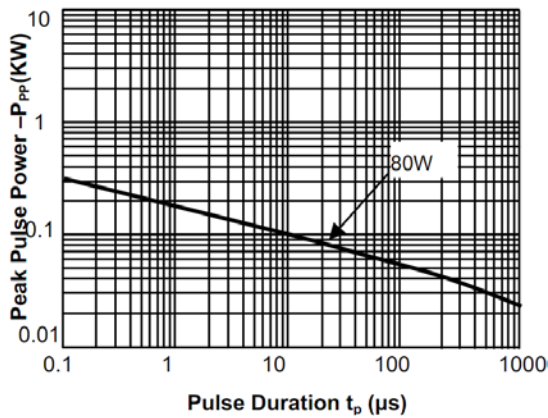


Fig.1 Peak Pulse Power Rating Curve

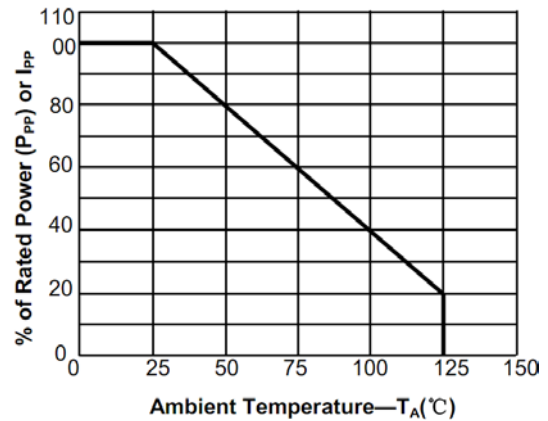


Fig.2 Pulse Derating Curve

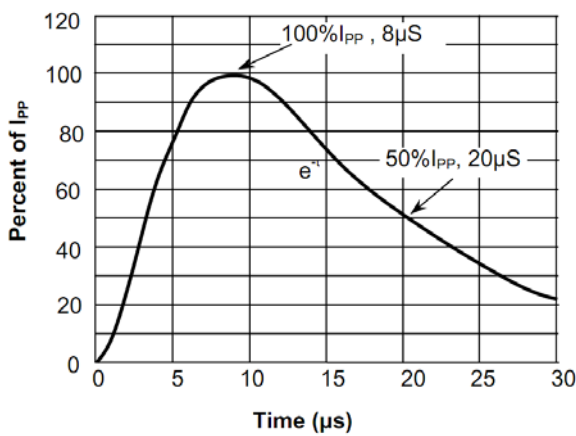


Fig.3 Pulse Waveform-8/20 μs

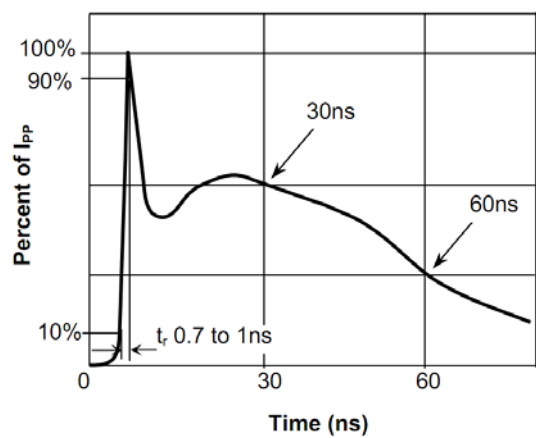
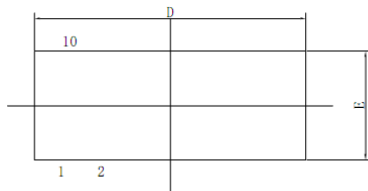


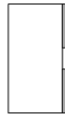
Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

9. Package Dimension

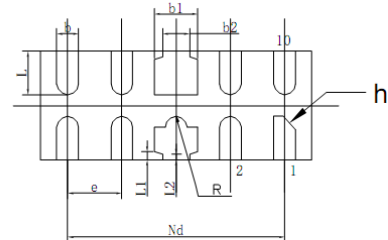
DFN2510 Package Outline



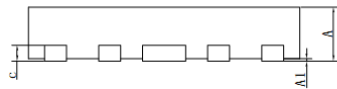
Top View



Side View

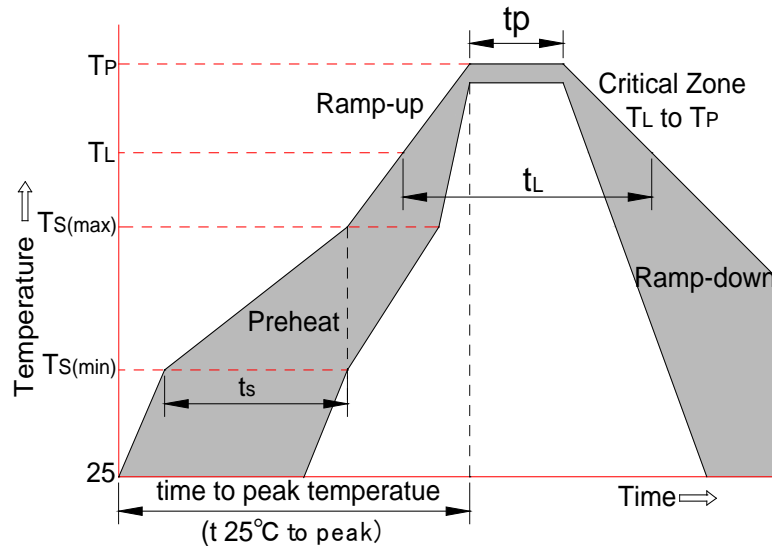


BottomView



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.45	0.50	0.55
A1	-	0.02	0.05
b	0.15	0.20	0.25
b1	0.35	0.40	0.45
b2	0.20	0.25	0.30
c	0.10	0.15	0.20
D	2.45	2.50	2.55
e	0.50BSC		
Nd	2.00 BSC		
E	0.95	1.00	1.05
L	0.35	0.40	0.45
L1	0.075 REF		
L2	0.05 REF		
h	0.08	0.12	0.15
R	0.05	0.10	0.15

10. Soldering Parameters



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		+260°C

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:

Click to view products by [SLKORMICRO](#) manufacturer:

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE39CA-TP](#) [P6KE8.2A](#) [JANTX1N6053A](#)
[SA110CA](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#) [SMBJ33CATR](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD105-B1-02EL E6327](#) [ESD112-B1-02EL E6327](#) [ESD119B1W01005E6327XTSA1](#) [ESD5V0L1B02VH6327XTSA1](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-HF](#)
[3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [JANTX1N6462](#) [JANTX1N6465](#) [USB50805e3/TR7](#)
[D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [DRTR5V0U4SL-7](#) [SCM1293A-04SO](#) [ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [SM1605E3/TR13](#)
[SMLJ45CA-TP](#) [CEN955 W/DATA](#) [82350120560](#) [VESD12A1A-HD1-GS08](#) [CPDUR5V0R-HF](#) [CPDQC5V0U-HF](#) [CPDQC5V0USP-HF](#)
[CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [ESD101-B1-02EL E6327](#) [824500181](#) [MMAD1108/TR13](#) [5KP100A](#)