



## PRODUCT DATA SHEET



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**Datasheet**



**Resources**

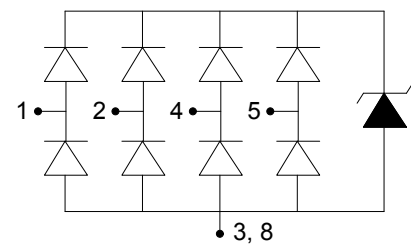
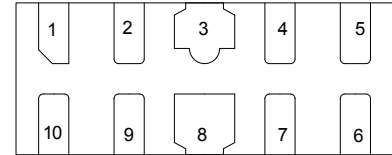


**Samples**

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at [www.jg-semi.cn](http://www.jg-semi.cn). Please email any questions regarding the system integration to [JINGAO\\_questions@jgsemi.com](mailto:JINGAO_questions@jgsemi.com).

## Features

- IEC 61000-4-2 Level 4 ESD Protection
  - ±12kV Contact Discharge
  - ±17kV Air Discharge
- IEC 61000-4-4 EFT Protection
  - 40A (5/50ns)
- IEC 61000-4-5 Surge
  - 4.5A (8/20us)
- RoHS compliance
- Protecting four I/O line
- Ultra-low Capacitance:0.6pF (Typical)
- Low clamping voltage
- Low leakage current
- Solid-state silicon technology



## Applications

- HDMI/USB2.0
- Monitors and flat panel displays
- 10/100/1000 ethernet
- Notebook computers
- SIM ports
- ATM interface

## Ordering Information

Part Number	Package	Marking	Material	Packing	Quantity per reel	Flammability Rating	Reel Size
RCLAMP0524J	DFN2510-10L	.0524P	Halogen free	Tape & Reel	3K PCS	UL 94V-0	7 inches

## Absolute Maximum rating

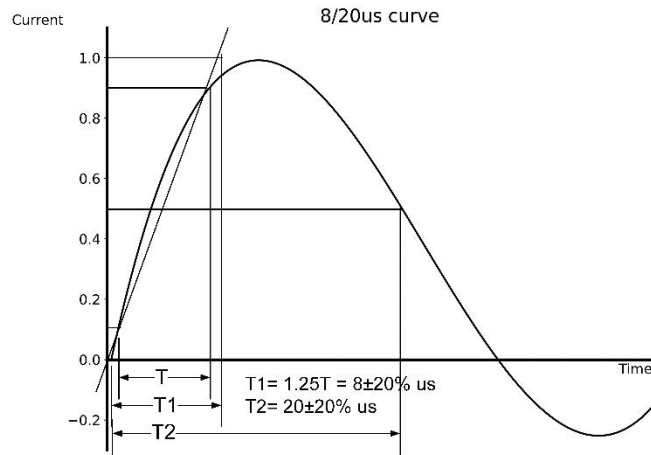
Over operating free-air temperature range (unless otherwise not

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P <sub>pk</sub>	-	70	W
Peak pulse current (tp=8/20us)@25°C	I <sub>PP</sub>		4.5	A
ESD (IEC61000-4-2 air discharge) @25°C	V <sub>ESD</sub>	-	±17	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V <sub>ESD</sub>	-	±12	kV
Junction temperature	T <sub>J</sub>	-	150	°C
Operating temperature	T <sub>OP</sub>	-40	125	°C
Storage temperature	T <sub>STG</sub>	-55	150	°C
Lead temperature	T <sub>L</sub>	-	260	°C

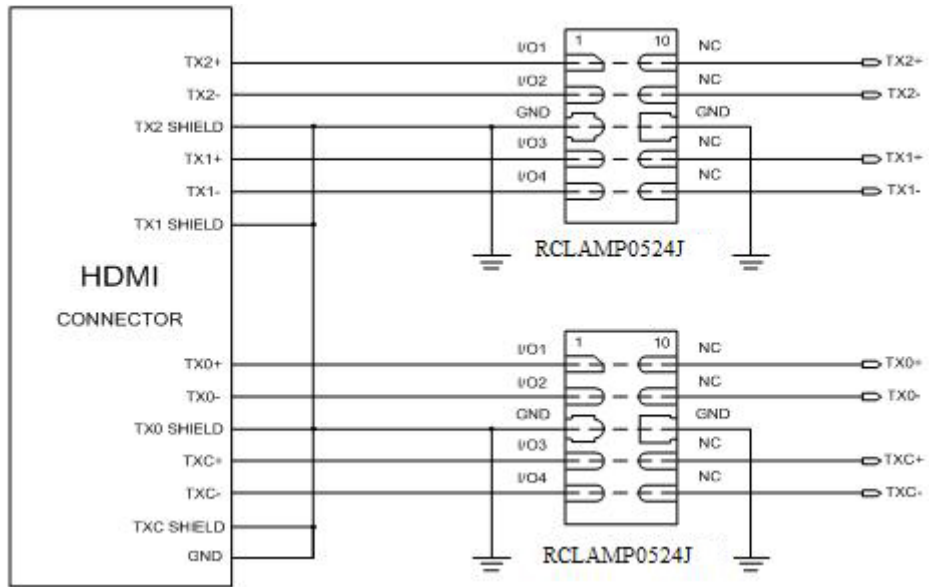
**Electrical Characteristics At TA = 25°C unless otherwise noted**

Parameters	Symbol	conditions	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	6.0			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V$			1.0	$\mu A$
Peak Pulse Current	$I_{PP}$	$TP = 8/20\mu s @ 25^\circ C$			4.5	A
Clamping Voltage	$V_{CL}$	$I_{PP} = 1A; TP = 8/20\mu s$		9.0	11.0	V
Clamping Voltage	$V_{CL}$	$I_{PP} = 4.5A; TP = 8/20\mu s$		12.0	15.0	V
Junction capacitance	$C_J$	I/O pins to ground; $V_R = 0V; f = 1MHz$		0.6		pF
		Between I/O pins; $V_R = 0V; f = 1MHz$		0.3		

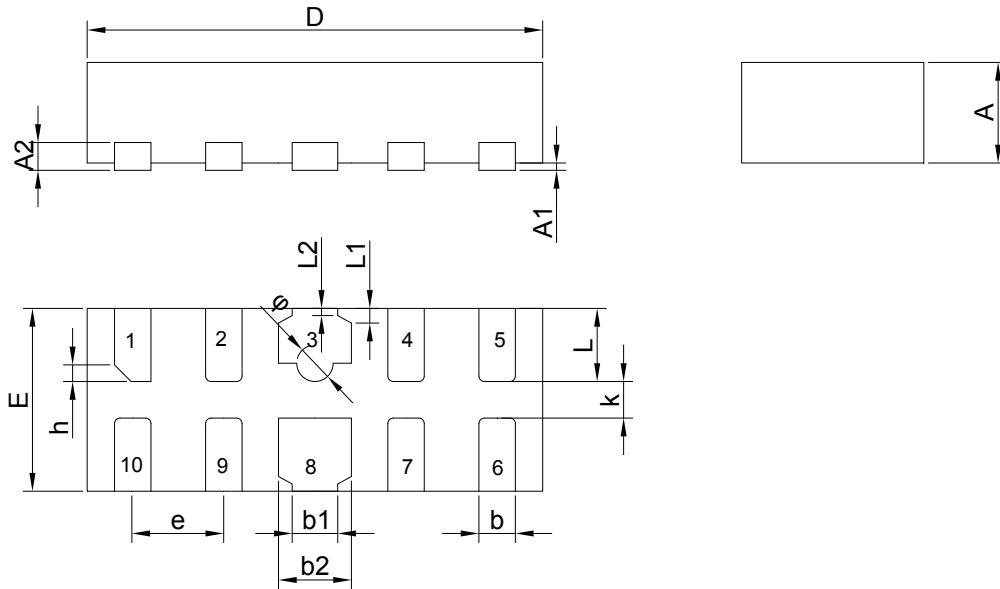
### Typical Characteristic



### Typical Application



Typical HDMI Interface Application

**Dimension (DFN2510-10L)**


Dimensions in Millimeter							
Symbol	Min.	Nom.	Max.	Symbol	Min.	Nom.	Max.
A	0.500	0.550	0.600	D	2.450	2.500	2.550
A1	0.00	/	0.05	E	0.950	1.00	1.050
A2	0.122	0.152	0.200	e	0.450	0.500	0.550
b	0.150	0.200	0.250	h	0.080	0.120	0.150
b1	0.200	0.250	0.300	k	0.150	0.200	0.250
b2	0.350	0.400	0.450	L	0.350	0.400	0.450
L1	0.075 REF			L2	0.05 REF		
$\phi$	0.150	0.200	0.250				

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