

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# **ESDSLC5V0LB**

## **Features**

- Ultra Low Capacitance 0.26pF typical
- Low operating Voltage: 5.0 V
- · Low clamping voltage
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5(Lightning) 4A (8/20us)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"
- Marking:21

# **Maximum Ratings**

unction Temperature: -55°C to +125°C
StorageTemperature: -55°C to +150°C

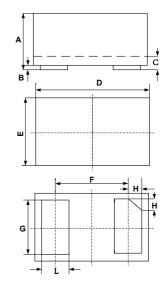
Parameter		Symbol	Limits	unit	
IEC61000-4-2(ESD)	Contact	\/	±15	KV	
	Air	$V_{ESD}$	$\pm 20$		
Peak Pulse Power (8/20us)		$P_{pk}$	80	W	
Peak Pulse Current (8/20us)		I <sub>pp</sub>	4	Α	

#### Internal Structure



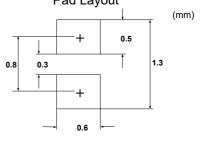
# ESD Protection Device

### **DFN1006-2**



DIMENSIONS					
DIM INCHES		HES	MM		NOTE
DIM	MIN	MAX	MIN	MAX	NOTE
A	0.018	0.022	0.45	0.55	
В	0.000	0.002	0.00	0.05	
С	0.005	0.007	0.12	0.18	
D	0.037	0.041	0.95	1.05	
Е	0.022	0.026	0.55	0.65	
F	0.026	REF.	0.650 1	REF.	
G	0.018	0.022	0.45	0.55	
Н	0.003	0.007	0.07	0.17	
L	0.008	0.012	0.20	0.30	

### Suggested Solder Pad Layout





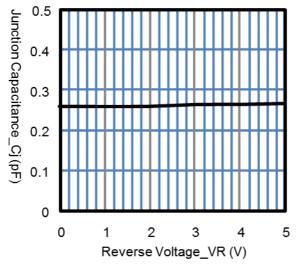
# **ESDSLC5V0LB**

### **ELECTRICAL CHARACTERISTICS(T<sub>a</sub>=25℃ unless otherwise specified)**

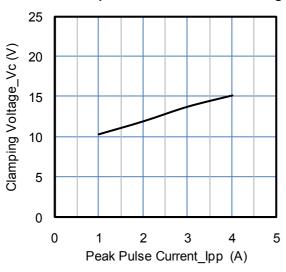
Parameter	Symbol	Test conditions	Min	Тур	Max	Unit
Reverse stand off voltage	$V_{RWM}$				5.0	V
Reverse leakage current	I <sub>R</sub>	V <sub>RWM</sub> =5.0V			0.5	μA
Breakdown voltage	V <sub>(BR)</sub>	I <sub>T</sub> =1mA	6.0	8.0	9.0	V
Clamping voltage	Vc	I <sub>PP</sub> =1A			12	V
Clamping voltage	Vc	I <sub>PP</sub> =4A			20	V
Junction capacitance	Сл	V <sub>R</sub> =0V,f=1MHz		0.26	0.35	pF



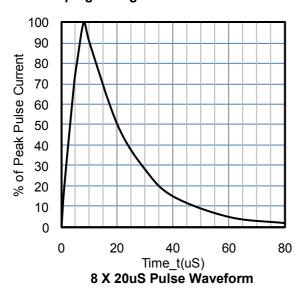
### Typical Performance Characteristics (TA=25°C unless otherwise Specified)

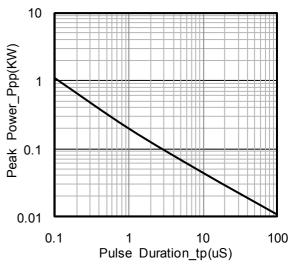


Junction Capacitance vs. Reverse Voltage

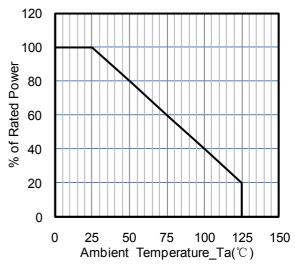


Clamping Voltage vs. Peak Pulse Current

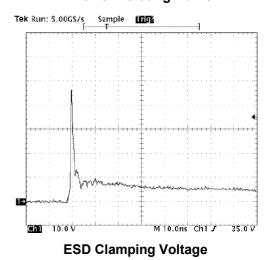




Peak Pulse Power vs. Pulse Time



**Power Derating Curve** 



8 kV Contact per IEC61000-4-2



### Ordering Information:

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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