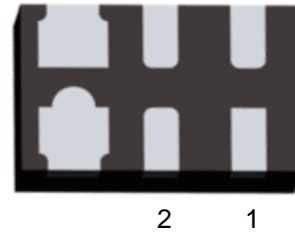


### Features

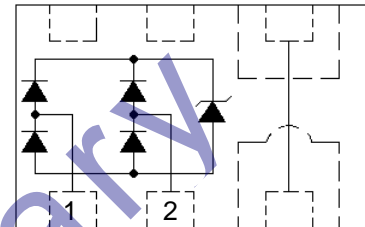
- 100Watts peak pulse power ( $t_p = 8/20\mu s$ )
- DFN1610-6L package
- Snap-Back technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance (0.30pF typical)
- ESD Protection for high-speed data lines to:
  - IEC 61000-4-2  $\pm 20KV$  contact  $\pm 25KV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 10A (8/20 $\mu s$ )
- RoHS compliant
- Moisture Sensitivity Level 1

### Applications

- USB 3.0, USB 2.0, MHL
- HDMI 2.0, Display Port 1.3, eSATA
- Unified Display Interface (UDI)
- Digital Visual Interface (DVI)
- 1G/2.5G/5G/10G Ethernet



DFN1610-6L



Schematic Diagram

### Absolute Maximum Ratings

( $T_A = 25^\circ C$ , Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P = 8/20\mu s$ )	$P_{PP}$	200	W
Peak Pulse Current ( $t_P = 8/20\mu s$ )	$I_{PP}$	10	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ C$

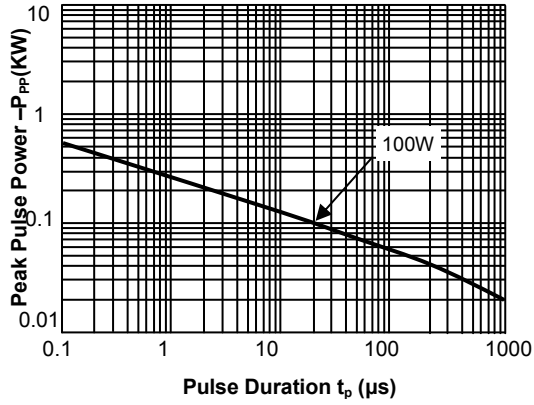
### Electrical Characteristics

( $T_A = 25^\circ C$ , Unless otherwise specified.)

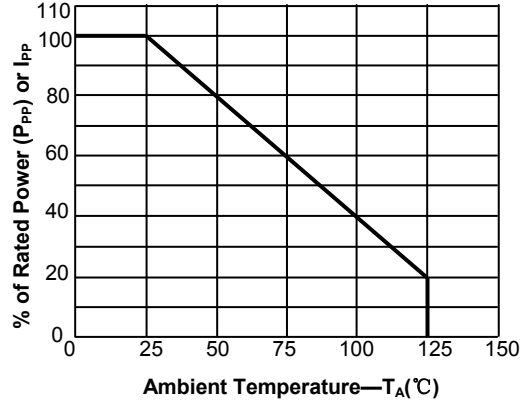
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 10\mu A$	6.5	9.5	15	V
Reverse Leakage Current	$I_R$	$V_R = 3.3V$		0.01	0.1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 10A, T_P = 8/20\mu s$		8.5	10	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz, I/O$ to GND		0.4	0.45	pF

## Typical Characteristic Curves

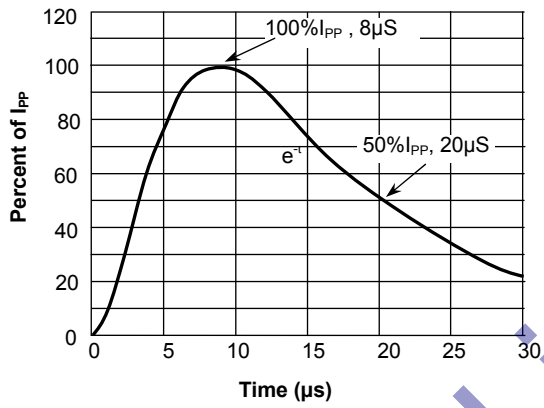
**Fig.1 Peak Pulse Power Rating Curve**



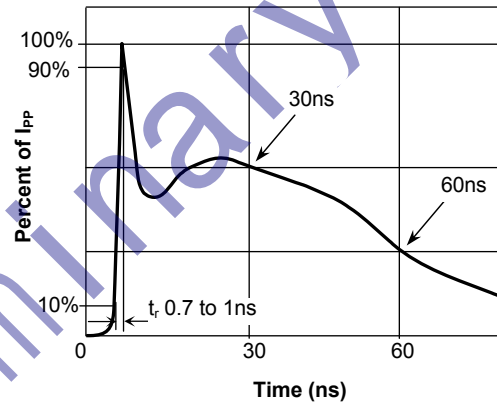
**Fig.2 Pulse Derating Curve**



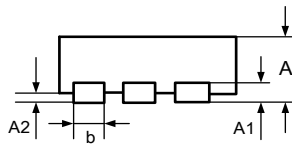
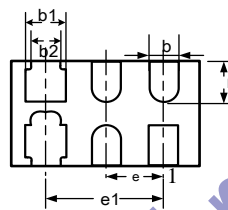
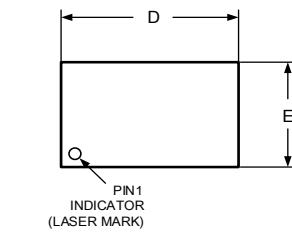
**Fig.3 Pulse Waveform-8/20μs**



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

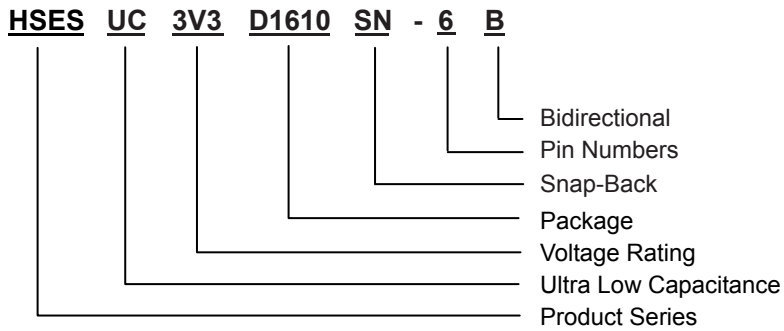


## Product Dimensions

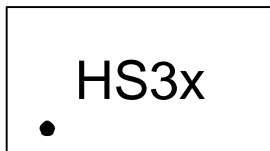


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	1.55	1.65	0.061	0.065
E	0.95	1.05	0.037	0.041
L	0.33	0.43	0.013	0.017
b	0.15	0.25	0.006	0.010
b1	0.35	0.45	0.014	0.018
b2	0.20	0.30	0.008	0.012
e	0.50BSC		0.020BSC	
e1	1.00BSC		0.039BSC	
A	0.40	0.50	0.016	0.020
A1	0.127REF		0.005REF	
A2	0.00	0.05	0.000	0.002

## Part Number System



## Marking



x:A or B

## Order Information


Device	Package	Carrier	Quantity	HSF Status
SESUC3V3D1610SN-6B	DFN1610-6L	Tape & Reel (7")	10000pcs / Reel	RoHS Compliant

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