

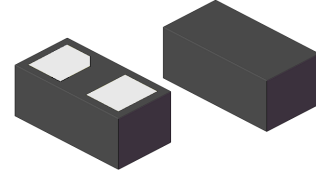
## Features

- 100Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Tiny DFN0603 package
- Bidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ( $C_j=0.2pF$  typ.)
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 15kV$  contact  $\pm 15kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 5A (8/20 $\mu s$ )
- RoHS compliant

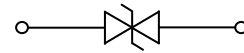
## Applications

- USB3.0, Firewire, DVI, HDMI, S-ATA
- Thunderbolt, Display Port
- Mobile HDMI Link, MDDI, MIPI, SWP / NFC

## SESUC3V3D0603-2B



DFN0603-X2



Schematic Diagram

## Absolute Maximum Ratings

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

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_p=8/20\mu s$ )	$P_{PP}$	100	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	15/15	kV
Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{PP}$	5	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage temperature	$T_{STG}$	-55 to +150	$^\circ C$
Maximum Lead Solder Temperature(10 second duration)	$T_L$	260	$^\circ C$

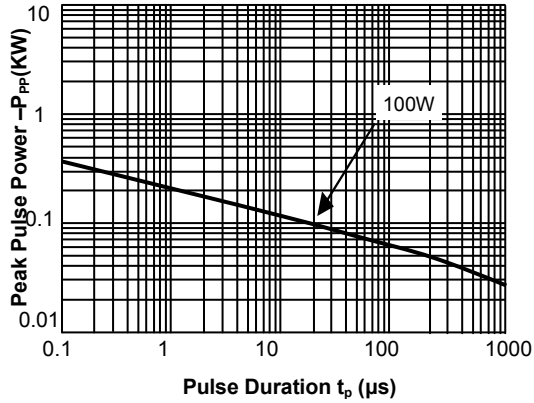
## Electrical Characteristics

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

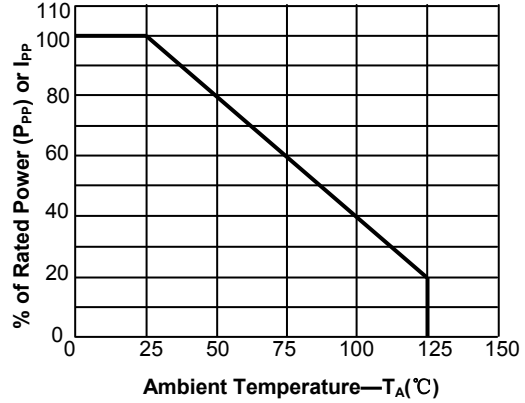
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.5	8.5		V
Reverse Leakage Current	$I_R$	$V_R=5.0V$		5	100	nA
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP}=5A$			20.5	V
Trigger Voltage (IEC 61000-4-2)	$V_T$	$V_{ESD}=8kV$		135		V
Clamping Voltage (IEC 61000-4-2)	$V_C$	$V_{ESD}=8kV$		20		V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		0.2	0.3	pF

## Typical Characteristic Curves

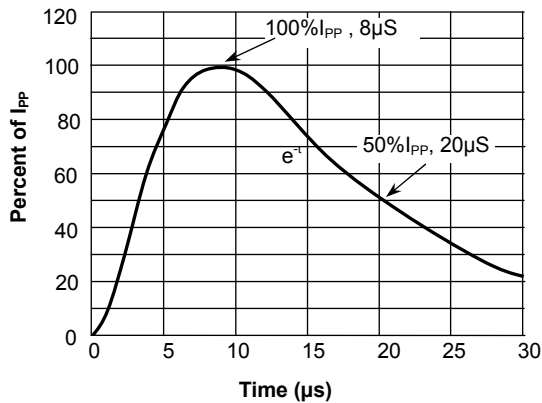
**Fig.1 Peak Pulse Power Rating Curve**



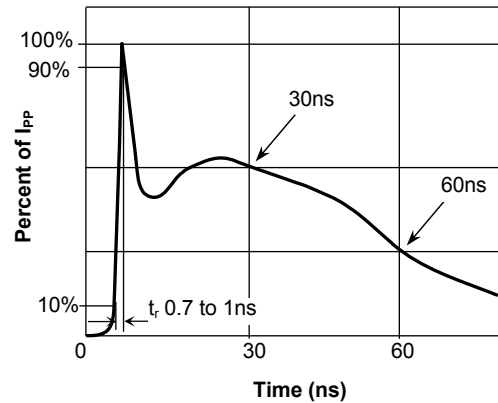
**Fig.2 Pulse Derating Curve**



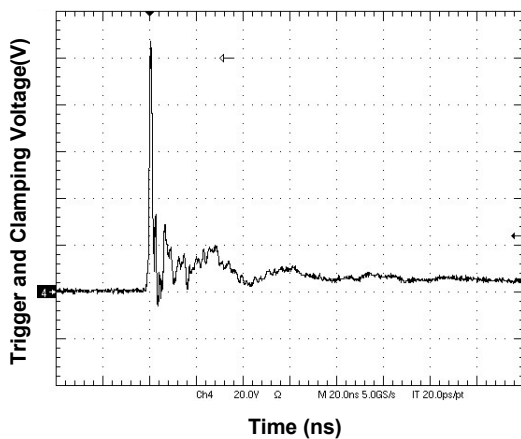
**Fig.3 Pulse Waveform-8/20 $\mu s$**



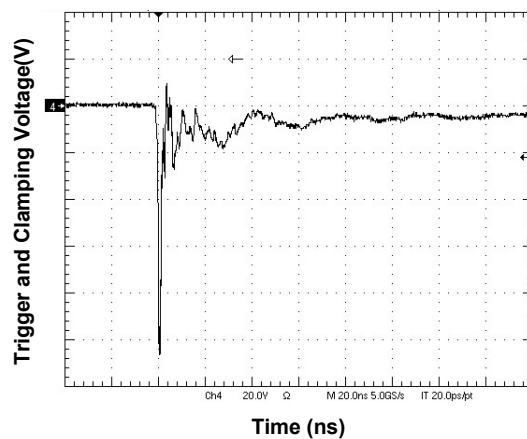
**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



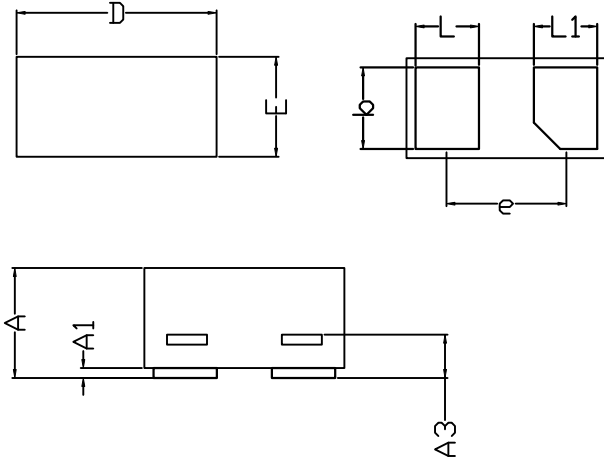
**Fig.5 IEC61000-4-2 +8kV Contact Discharge**



**Fig.6 IEC61000-4-2 -8kV Contact Discharge**

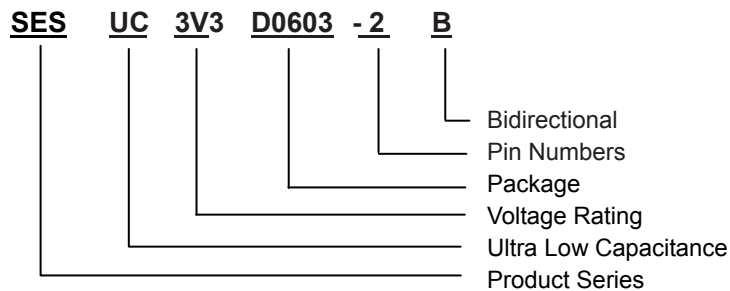


## Product Dimensions

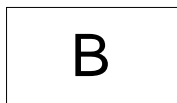


Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.23	-	0.33
A1	0.00	-	0.05
A3	0.102 REF		
D	0.55	0.60	0.65
E	0.25	0.30	0.35
b	0.215	0.245	0.275
L	0.160	0.190	0.220
L1	0.160	0.190	0.220
e	0.355 BSC		

## Part Number System



## Marking



## Order Information

Device	Package	Carrier	Quantity	HSF Status
SESUC3V3D0603-2B	DFN0603-X2	Tape & Reel	15000pcs / Reel	RoHS compliant

## Revision history


Date	Revision	Description of changes
22-April-2015	A0	First issue
29-March-2016	A1	Update PAD Dimensions

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