

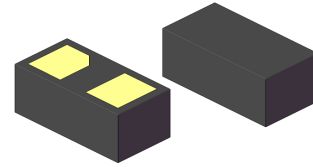
Features

- 70Watts peak pulse power ($t_p = 8/20\mu s$)
- Tiny DFN0603 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Medium capacitance ($C_J=12pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- RoHS compliant

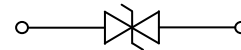
Applications

- Audio Line, Speaker, Headset, Microphone Protection
- Human Interface Devices (Keyboard, Touchpad, Buttons)

SES3V3D0603-2B



DFN0603-X3



Schematic Diagram

Absolute Maximum Ratings

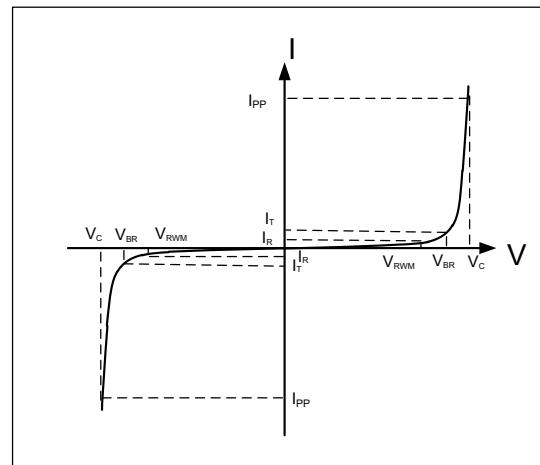
($T_A=25^\circ C$, Unless otherwise specified.)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_p=8/20\mu s$)	P_{PP}	70	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	7	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.)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_R
I_T	Test Current



Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.7	5.0		V
Reverse Leakage Current	I_R	$V_R=3.3V$		0.01	1	μA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=1A$		6.6	8.0	V
		$I_{PP}=5A$		7.0	9.0	V
		$I_{PP}=7A$		7.6	10.0	V
Trigger Voltage (steady state)	V_T		5.1			V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$		75		V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$		15		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		12		pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

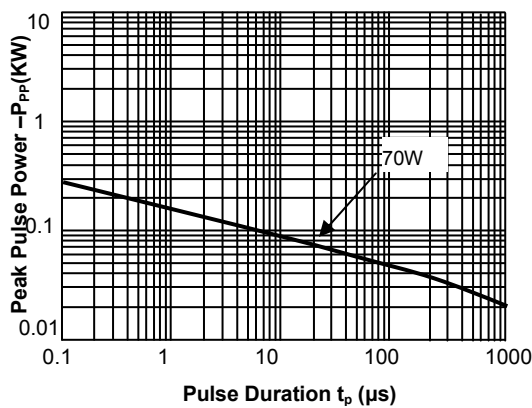


Fig.2 Pulse Derating Curve

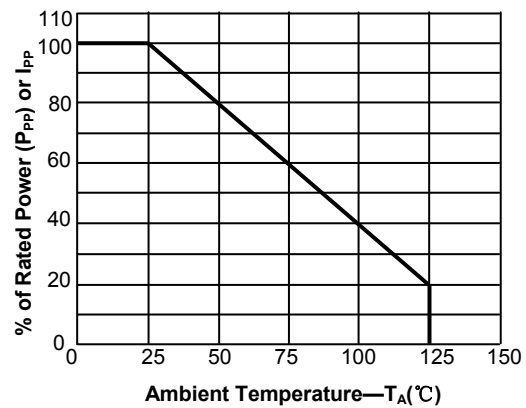


Fig.3 Pulse Waveform-8/20 μs

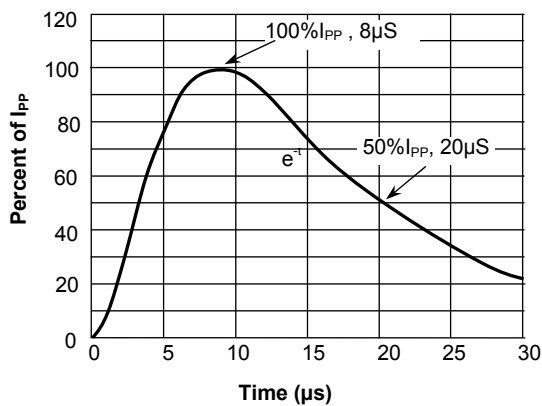
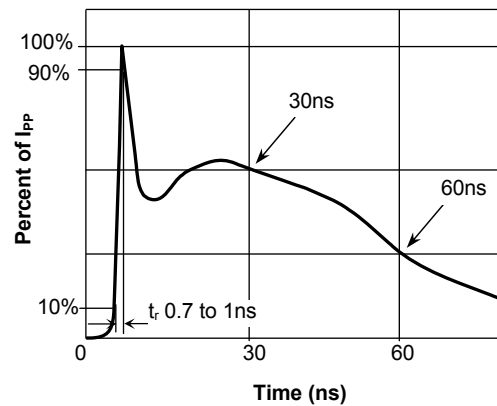
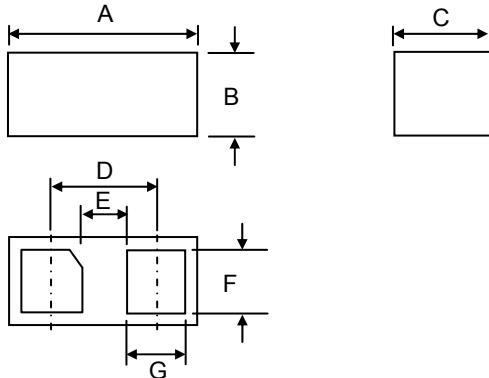


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

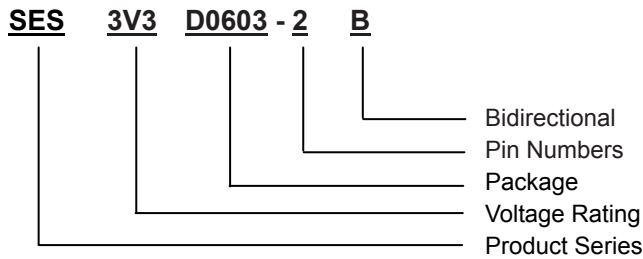


Product Dimensions



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.585	0.610	0.635
B	0.270	0.290	0.310
C	0.285	0.310	0.335
F	0.210	0.230	0.250
G	0.170	0.190	0.210
D	0.340		
E	0.150		

Part Number System



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SES3V3D0603-2B	DFN0603-X3	Tape & Reel	15000pcs / Reel	RoHS compliant

Revision history


Date	Revision	Description of changes
12-April-2015	A0	First issue

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