

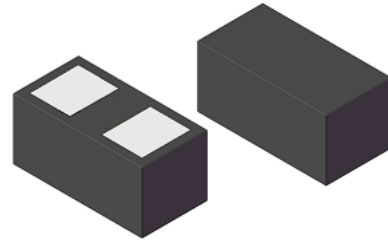
Features

- 60Watts 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 $\pm 10kV$ contact $\pm 18kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 3A (8/20 μs)
- RoHS compliant

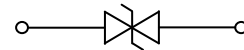
Applications

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

SESUC5VD0603SY-2B



DFN0603



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}	60	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	10/18	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	3	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}				5.0	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	$I_{PP}=3A$			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

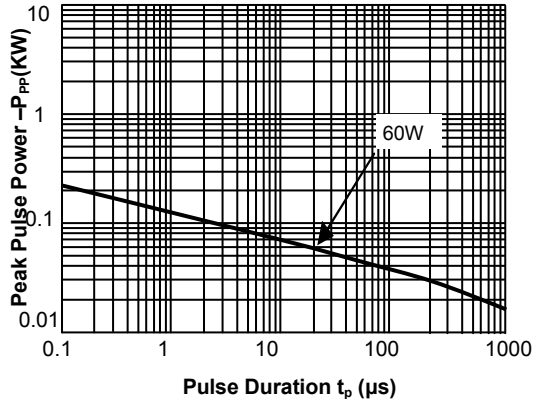


Fig.2 Pulse Derating Curve

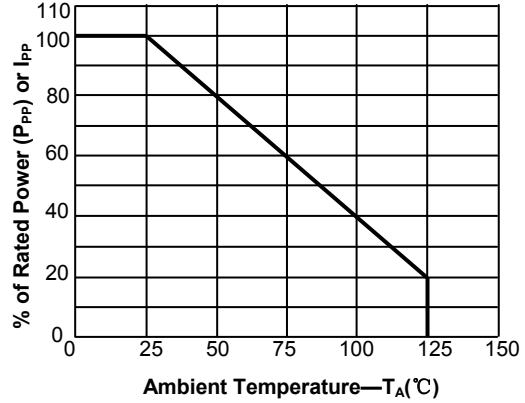


Fig.3 Pulse Waveform-8/20μs

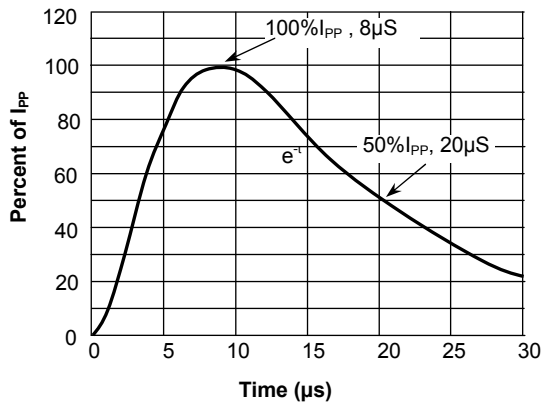


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

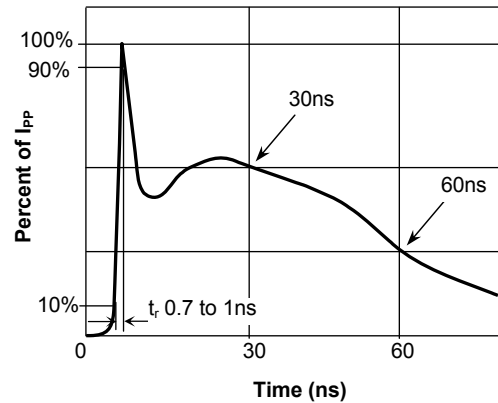


Fig.5 IEC61000-4-2 +8kV Contact Discharge

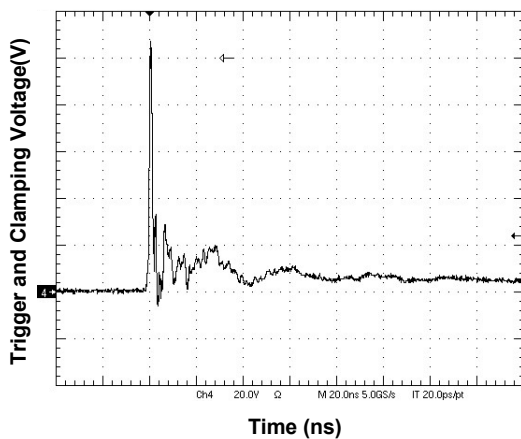
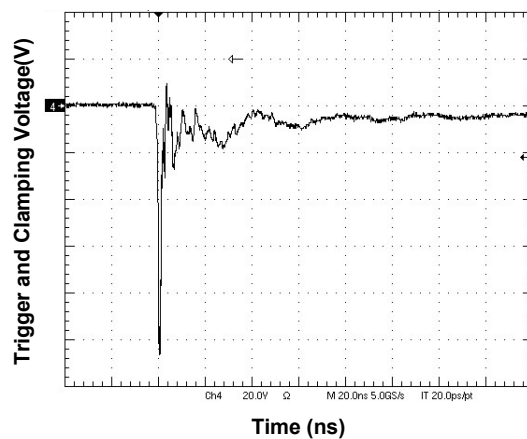
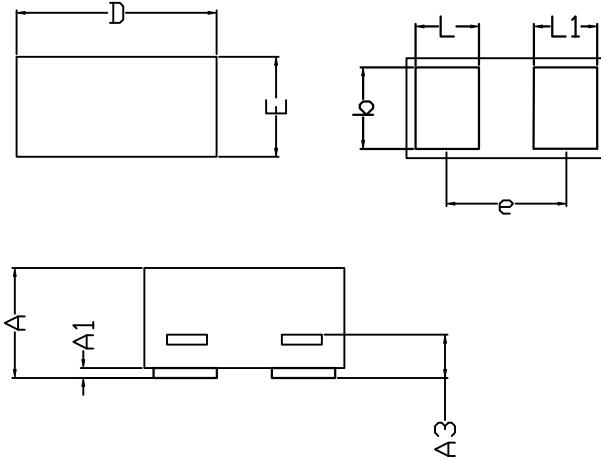


Fig.6 IEC61000-4-2 -8kV Contact Discharge

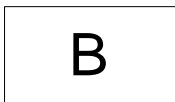


Product Dimensions



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	0.13	0.18	0.23
L1	0.13	0.18	0.23
e	0.355 BSC		

Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SESUC5VD0603SY-2B	DFN0603	Tape & Reel	15000pcs / Reel	RoHS compliant

Revision history


Date	Revision	Description of changes
20-October-2020	A2	Update

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