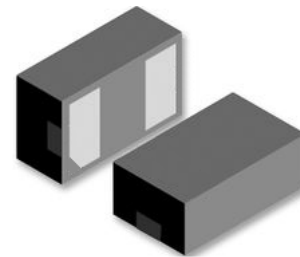


Features

- 35Watts peak pulse power ($t_p = 8/20\mu s$)
- DFN0603 package
- Snap-Back technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance (0.25pF typical)
- ESD Protection for high-speed data lines to:
 - IEC 61000-4-2 $\pm 10kV$ contact $\pm 12kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 5A (8/20 μs)
- RoHS compliant

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



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}	35	W
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	$^\circ C$

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}	$I_T=1mA$	5	6.8	12	V
Reverse Leakage Current	I_R	$V_R=3.3V$		0.01	0.1	μA
Trigger Voltage	V_T	$I_{PP}=5A, T_P=8/20\mu S$		9.0		V
Clamping Voltage	V_C	$I_{PP}=5A, T_P=8/20\mu S$		6.5		V
Clamping Voltage (TLP 8A)	V_C	IEC 61000-4-2 Level 2 ($\pm 4 kV$ Contact, $\pm 4 kV$ Air)		4.5		V
Clamping Voltage (TLP 16A)	V_C	IEC 61000-4-2 Level 4 ($\pm 8 kV$ Contact, $\pm 8 kV$ Air)		6.0		V
Dynamic Resistance	R_{dyn}	$I_T=0\sim 30A, t_p=TLP$		0.25		Ω
Junction Capacitance	C_J	$V_R=0V, f=1MHz$		0.25	0.35	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

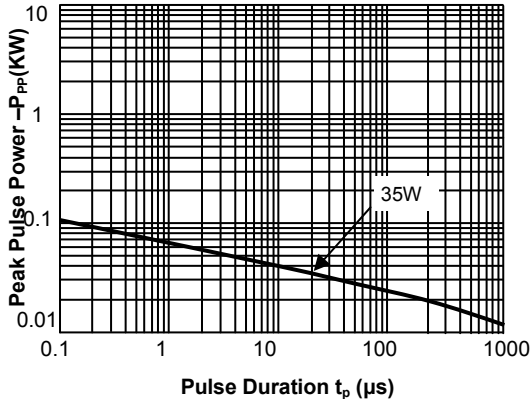


Fig.2 Pulse Derating Curve

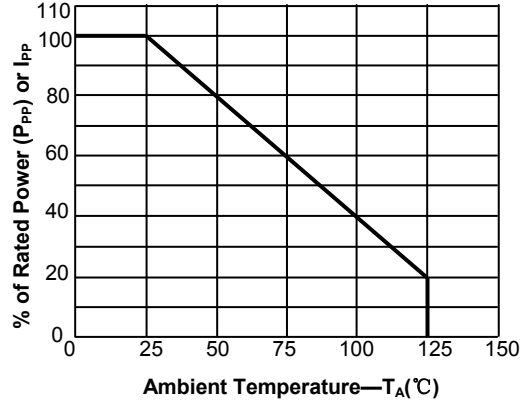


Fig.3 IEC61000-4-2 +8kV Contact Discharge

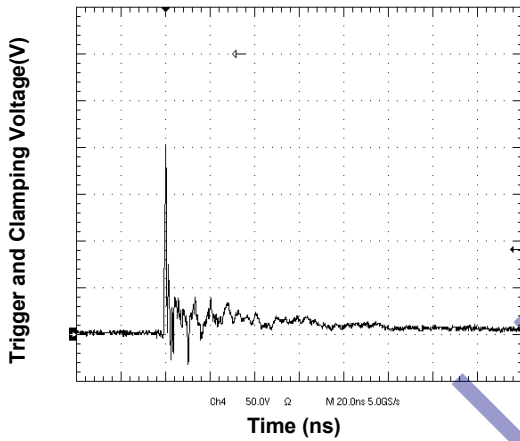


Fig.4 IEC61000-4-2 -8kV Contact Discharge

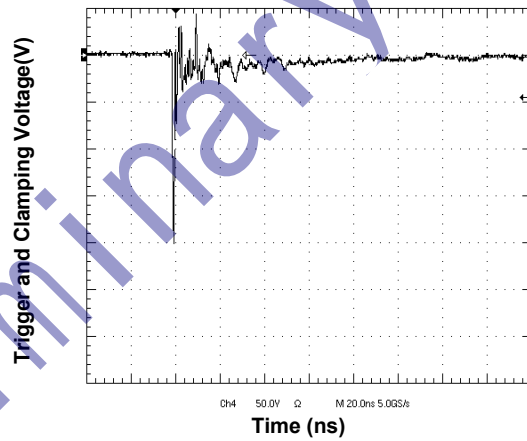


Fig.5 Transmission Line Pulse (tp=100ns)

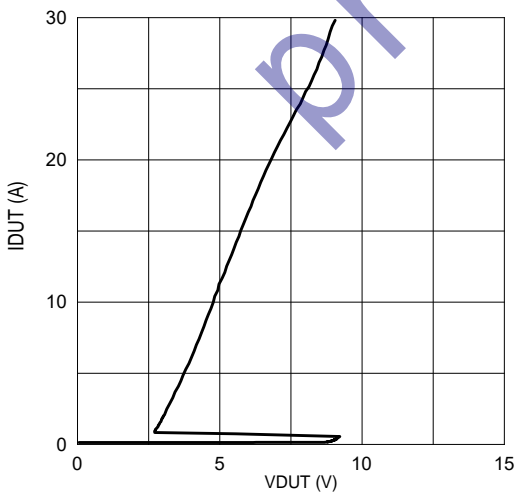
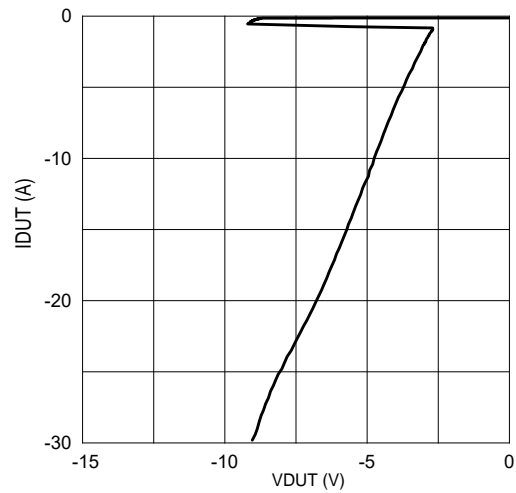
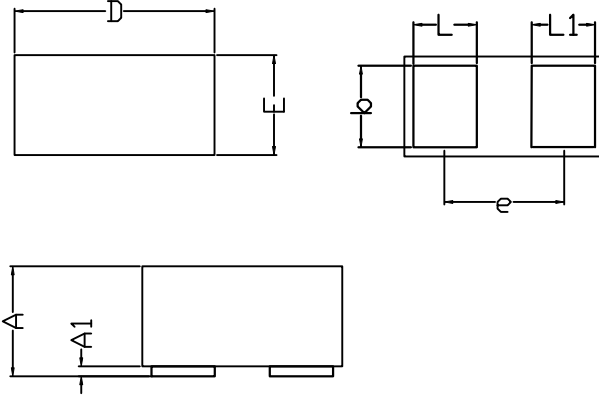


Fig.6 Transmission Line Pulse (tp=100ns)

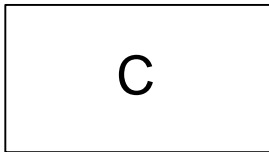


Product Dimensions



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.23	-	0.33
A1	0.00	-	0.05
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
SESUC3V3D0603PSN-2B	DFN0603	Tape & Reel (7")	10000pcs / Reel	RoHS Compliant

CAUTION / WARNING

- Information in this document is believed to be accurate and reliable. However, SEMITEL does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information.
- Users should independently evaluate the suitability of and test each product selected for their own applications, and SEMITEL assumes no liability whatsoever relating to the choice, selection or use of the SEMITEL products and services described herein.
- SEMITEL reserves the right to change or update, without notice, any information contained in this publication; to change, without notice, the design, construction, processing, or specification of any product; and to discontinue or limit production or distribution of any product.
- Information in this document supersedes and replaces all information previously supplied.
- Products are not designed, authorized or warranted to be suitable for use in medical, military, aircraft, space or life support equipment, nor in applications where failure or malfunction of an SEMITEL product can reasonably be expected to result in personal injury, death or severe property or environmental damage. SEMITEL accepts no liability for inclusion and/or use of SEMITEL products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.
- This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from national authorities.
- Resale of SEMITEL products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by SEMITEL for the SEMITEL product or service described herein and shall not create or extend in any manner whatsoever, any liability of SEMITEL.
- SEMITEL expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. SEMITEL only obligations are those in the SEMITEL Standard Terms and Conditions of Sale and in no case will SEMITEL be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.

Specifications are subject to change without notice

© Copyright 2005, Semitel Electronics

 . ® is a registered trademark of Semitel Electronics

All rights reserved