

## HSESDONCAN1LT1G ESD PROTECTION DIODE

#### Discription

The HSESDONCAN1LT1G protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.

## Features

- ★ LowLeakage
- ★ IEC61000-4-2Level4ESDProtection
- ★ We declare that the material of product compliant with RoHS requirements and Halogen Free.

## **Orderingin formation**

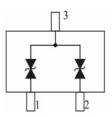
Product ID	Pack	Qty(PCS)
HSESDONCAN1LT1G	SOT-23	3000

## Absolute Ratings(Tamb = 25°C)

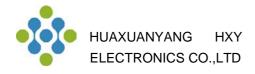
Symbol	Parameter	Value	Units	
P <sub>PP</sub>	Peak Pulse Power (t <sub>p</sub> = 8/20µs)		160	W
TL	Maximum lead temperature for soldering during 10s	260	°C	
T <sub>stg</sub>	Storage Temperature Range		-55 to +150	°C
T <sub>op</sub>	Operating Temperature Range		-55 to +125	°C
Tj	Maximum junction temperature		150	°C
	IEC61000-4-2 (ESD)	air discharge contact discharge	±30 ±30	KV



SOT-23



Circuit Diagram



## **Electrical Characteristics**

	V <sub>RWM</sub> (V)	I <sub>R</sub> (μΑ) @ V <sub>RWM</sub>	V <sub>BR</sub> (V) @ I <sub>T</sub> (Note 1)		Ι <sub>Τ</sub>	V <sub>C</sub> (V) @MAX I <sub>PP</sub> (Note 2)	<b>I<sub>PF</sub>(A)</b> (Note 2)	<b>Р<sub>РК</sub>(W)</b> (Note 2)	C (pF)
Device	Max	Мах	Min	Max	mA	Max	Max	Max	Тур
HSESDONCAN1LT1G	24	0.5	26	33	1	40	4	160	10

Other voltage available upon request.

1.  $V_{BR}$  is measured with a pulse test current ITat an ambient temperature of  $25\,^\circ\!\!\mathbb{C}$ 

2. Surge current waveform per Figure 1.

## **Typical Characteristics**

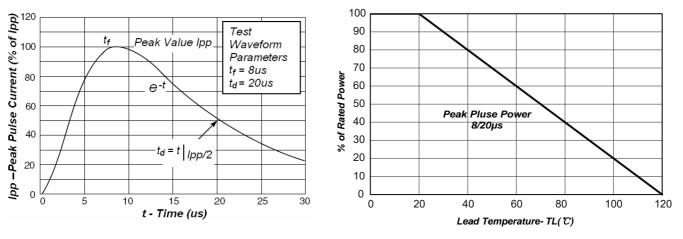
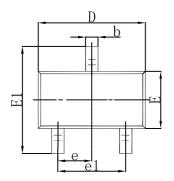


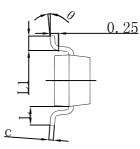
Fig1. Pulse Waveform

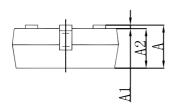
**Fig2.Power Derating Curve** 



## **SOT-23 Package Outline Dimensions**

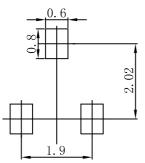






Symbol	Dimensions	In Millimeters	Dimensions In Inches		
	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
Е	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
e	0.950 TYP		0.037 TYP		
e1	1.800	2.000	0.071	0.079	
L	0.550 REF		0.022 REF		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

## SOT-23 Suggested Pad Layout



Note: 1.Controlling dimension:in millimeters.

2.General tolerance:± 0.05mm.
 3.The pad layout is for reference purposes only.



#### **Attention**

Any and all HUA XUAN YANG ELECTRONICS products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your HUA XUAN YANG ELECTRONICS representative nearest you before using any HUA XUAN YANG ELECTRONICS products described or contained herein in such applications.

• HUA XUAN YANG ELECTRONICS assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein.

• Specifications of any and all HUA XUAN YANG ELECTRONICS products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.

• HUA XUAN YANG ELECTRONICS CO.,LTD. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could

give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.

• In the event that any or all HUA XUAN YANG ELECTRONICS products(including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.

• No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of HUA XUAN YANG ELECTRONICS CO.,LTD.

Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production.
HUA XUAN YANG ELECTRONICS believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the HUA XUAN YANG ELECTRONICS product that you intend to use.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for ESD Suppressors / TVS Diodes category:

Click to view products by HXY MOS manufacturer:

Other Similar products are found below :

60KS200C D18V0L1B2LP-7B D5V0F4U5P5-7 NTE4902 P4KE27CA P6KE11CA P6KE8.2A SA60CA SA64CA SMBJ12CATR SMBJ33CATR SMBJ6.5A SMBJ8.0A ESD101-B1-02ELS E6327 ESD112-B1-02EL E6327 ESD7451N2T5G 19180-510 CPDT-5V0USP-HF 3.0SMCJ33CA-F 3.0SMCJ36A-F HSPC16701B02TP JANTX1N6126A D3V3Q1B2DLP3-7 D55V0M1B2WS-7 SCM1293A-04SO ESD200-B1-CSP0201 E6327 SM12-7 CEN955 W/DATA VESD12A1A-HD1-GS08 CPDQC5V0-HF D1213A-01LP4-7B ESD101-B1-02EL E6327 AOZ8808DI-03 5KP15A 5KP48A 5KP90A ESD3V3D7-TP 15KPA36A-LF P4KE56CA P4KE68A P4KE91CATR P6KE120A P6KE13CA P6KE43CA P6KE6.8CA P6KE8.2 P6SMBJ20CA JANTX1N6072A SR2835ESKG SA90CA