



## Features

- Total power dissipation: Max.300mW
- Wide zenerreverse voltage range 2.0V to 75V
- Small plastic package suitable for surface mounted design
- Tolerance approximately  $\pm 5\%$



SOD-323



## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
HMM3ZxxT1G	SOD-323	XX	3000

XX=Device code, see table on page2 the marking code.

The marking bar indicates the cathode.

## Absolute Maximum Ratings( $T_a=25^\circ C$ )

Characteristic	Symbol	Value	Unit
Forward voltage @ $I_F = 10\text{mA}$	$V_F$	0.9	V
Power Dissipation	$P_D$	300	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	417	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150	°C

Notes: Device mounted on ceramic PCB; 5.0mm×7.0mm with pad areas 35 mm<sup>2</sup>



**Electrical Characteristics (Ta=25°C unless otherwise specified)**

Type	Marking	Zener Voltage Range <sup>(1)</sup>			Dynamic Impedance (mΩ)	Reverse Current	
		V <sub>ZT</sub> ( at I <sub>ZT</sub> )		I <sub>ZT</sub>		Z <sub>ZT</sub> ( at I <sub>ZT</sub> )	I <sub>R</sub>
		Min ( V )	Nom ( V )	Max ( V )		Max ( Ω )	Max ( μA )
HMM3Z2V0T1G	B0	1.8	2.0	2.15	5	100	120
HMM3Z2V2T1G	C0	2.08	2.2	2.33	5	100	120
HMM3Z2V4T1G	1C	2.28	2.4	2.56	5	100	120
HMM3Z2V7T1G	1D	2.5	2.7	2.9	5	110	120
HMM3Z3V0T1G	1E	2.8	3.0	3.2	5	120	50
HMM3Z3V3T1G	1F	3.1	3.3	3.5	5	130	20
HMM3Z3V6T1G	1H	3.4	3.6	3.8	5	130	10
HMM3Z3V9T1G	1J	3.7	3.9	4.1	5	130	5
HMM3Z4V3T1G	1K	4	4.3	4.6	5	130	5
HMM3Z4V7T1G	1M	4.4	4.7	5	5	130	2
HMM3Z5V1T1G	1N	4.8	5.1	5.4	5	130	2
HMM3Z5V6T1G	1P	5.2	5.6	6	5	80	1
HMM3Z6V2T1G	1R	5.8	6.2	6.6	5	50	1
HMM3Z6V8T1G	1X	6.4	6.8	7.2	5	30	0.5
HMM3Z7V5T1G	1Y	7	7.5	7.9	5	30	0.5
HMM3Z8V2T1G	1Z	7.7	8.2	8.7	5	30	0.5
HMM3Z9V1T1G	2A	8.5	9.1	9.6	5	30	0.5
HMM3Z10VT1G	2B	9.4	10	10.6	5	30	0.1
HMM3Z11VT1G	2C	10.4	11	11.6	5	30	0.1
HMM3Z12VT1G	2D	11.4	12	12.7	5	35	0.1
HMM3Z13VT1G	2E	12.4	13	14.1	5	35	0.1
HMM3Z15VT1G	2F	13.8	15	15.6	5	40	0.1
HMM3Z16VT1G	2H	15.3	16	17.1	5	40	0.1
HMM3Z18VT1G	2J	16.8	18	19.1	5	45	0.1
HMM3Z20VT1G	2K	18.8	20	21.2	5	50	0.1
HMM3Z22VT1G	2M	20.8	22	23.3	5	55	0.1
HMM3Z24VT1G	2N	22.8	24	25.6	5	60	0.1
HMM3Z27VT1G	2P	25.1	27	28.9	2	70	0.1
HMM3Z30VT1G	2R	28	30	32	2	80	0.1
HMM3Z33VT1G	2X	31	33	35	2	80	0.1
HMM3Z36VT1G	2Y	34	36	38	2	90	0.1
HMM3Z39VT1G	2Z	37	39	41	2	100	0.1
HMM3Z43VT1G	3A	40	43	46	2	130	0.1
HMM3Z47VT1G	3B	44	47	50	2	150	0.1
HMM3Z51VT1G	3C	48	51	54	2	180	0.1
HMM3Z56VT1G	3D	52	56	60	2	200	0.1
HMM3Z62VT1G	3E	58	62	66	2	215	0.1
HMM3Z68VT1G	3F	64	68	72	2	240	0.1
HMM3Z75VT1G	3H	70	75	79	2	265	0.1

( 1 ) V<sub>ZT</sub> is tested with pulses (20 ms)



## Typical Characteristics

Fig.1 Maximum Continuous Power Derating

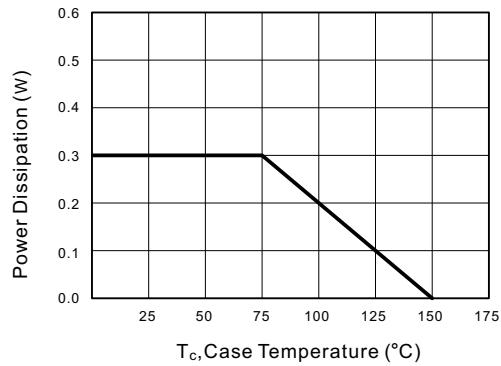
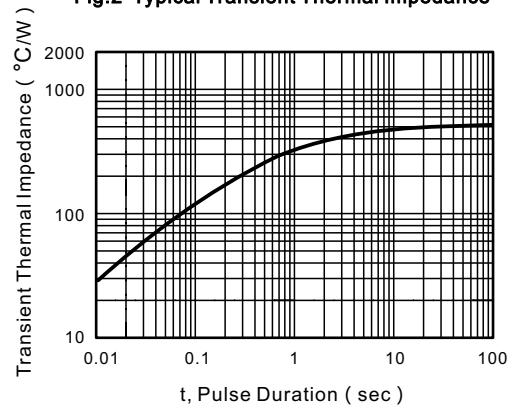
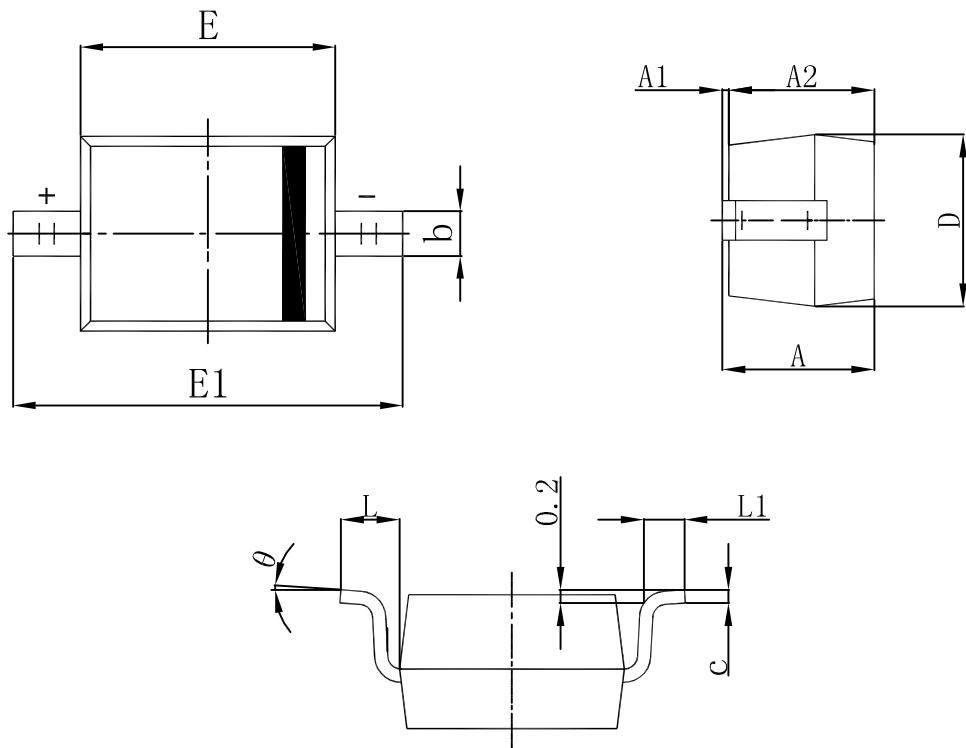


Fig.2 Typical Transient Thermal Impedance





### SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
$\theta$	0°	8°	0°	8°



### 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.