DF2B18FU,H3F
ESD PROTECTION DIODE

Discription

Low capacitance bidirectional ElectroStatic Discharge (ESD) protection diode in a ultra-small and flat lead SOD-323 plastic package designed to protect one signal line from the damage caused by ESD and other transients.



SOD-323

Features

★ Bidirectional ESD protection of one line
★ Reverse stand-off voltage: 12.0V Max
★ Low leakage current: nA Level
★ Response time is typically < 1 ns
★ Low clamping voltage: VC < 18 V @ IPP = 18A
★ ESD Protection: 30kV(air)/ 30kV(contact) (IEC61000-4-2)
★ RoHS compliant



Circuit Diagram

Applications

★ Cell Phone Handsets and Accessories
★ Microprocessor based equipment
★ Personal Digital Assistants (PDA's)
★ Notebooks,Desktops,and Servers

Ordering Information

Product ID	Pack	Qty(PCS)
DF2B18FU,H3F	SOD-323	3000

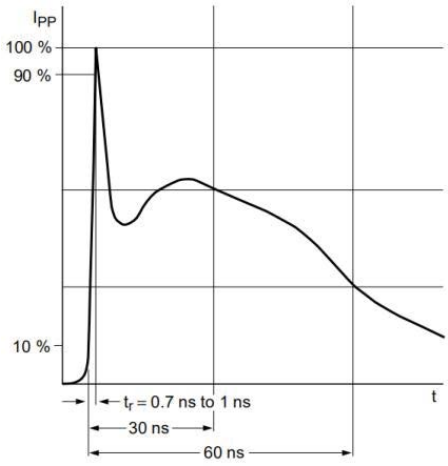
Absolute Ratings(Tamb = 25°C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P_{PPM}	160	W
Peak Pulse Current(tp = 8/20μs)	I_{PPM}	9	A
ESD voltage IEC 61000-4-2 (air discharge)	V_{ESD}	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V_{ESD}	30	kV
Maximum lead temperature for soldering during 10s	T_L	260	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Temperature Range	T_{OP}	-40 to +125	°C

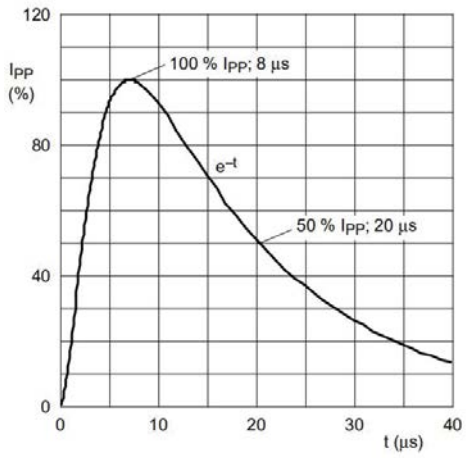
Electrical Characteristics

Symbol	Parameter	Test Condition	Min	Typ	Maxx	Units
V_{RWM}	Reverse Working Voltage				12.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	13.5			V
I_R	Reverse Leakage Current	V_{RWM} = 5.0V			0.1	uA
V_C	Clamping Voltage	I_{RWM} = 4A, t_p = 8/20μs			18	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		8		pF

Typical Characteristics

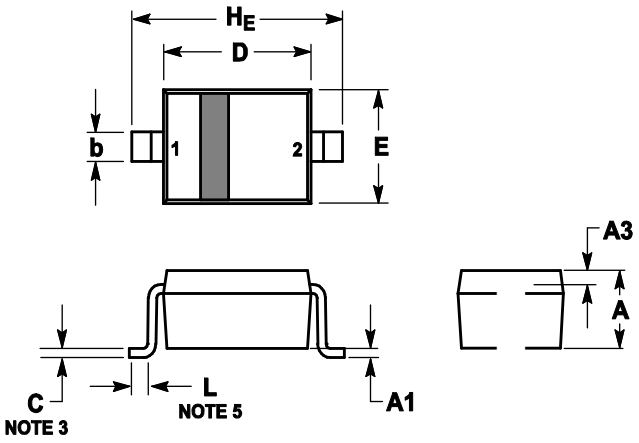


IEC61000−4−2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Outline And Dimensions

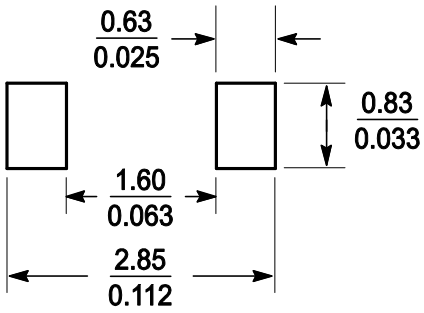


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.3	2.5	2.7	0.09	0.098	0.105

Soledering Footprint



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.

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

HXY MOSFET:

TPS7A0533PDBZR-HXY S4D15120H DMPH6250SQ-13 HBAS40-05LT1G PTVSHC3D5VU
TLV74318PDBVR-HXY TPD1E0B04DPYR SS5150 1SMB5934B MUR1040FCT SG3525-HXY
SGM3798YG/TR C3M0040120D E4D10120A MJD127G S3D08065E AOD403-HXY CH440G
IDL10G65C5XUMA2 C4D08120E-TR IRLML2244TRPBF-HXY MSC040SMA120B4 Si2323DS-T1-E3-HXY
1SMB5930BT3G BD237STU ISL28133FHZ-T7 ISL28233FUZ-T7 2N7002-HXY C6D06065Q-TR DSC06065