

Uni-directional ESD Protection Array

Peak Pulse Power - 350 Watts
Reverse Working Voltage - 3.3V thru 36V

Description

The HxxC32xVx series has been specifically designed to protect sensitive components which are connected to power, data and transmission lines from overvoltage caused by ESD (electrostatic discharge).

Features

- Two Uni-directional of ESD Protection
- Peak Pulse Power : P_{pp} = 350W (t_p=8/20 us)
- Reverse Working Voltage : 3.3V thru 36V
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) : ±27kV(Contact) / ±30kV(Air)

Applications

- Communication system
- Computers and peripherals
- Cellular handset and accessories
- Portable electronics

Mechanical Data

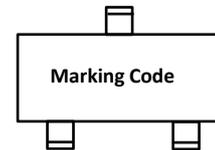
- Case: SOT23 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Ordering Information

- Package : SOT23
- Reel Size : 7 (inches)
- Quantity Per Reel : 3,000 pcs
- Quantity One Box : 45,000 pcs
- Quantity One Carton : 180,000 pcs

Marking Information



"M03" = 3.3V Product Type Marking Code

"M05" = 5V Product Type Marking Code

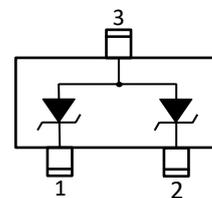
See marking code of Page 2

Package Outline



SOT23 Top View

Device Schematic & PIN Configuration



Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Absolute Ratings

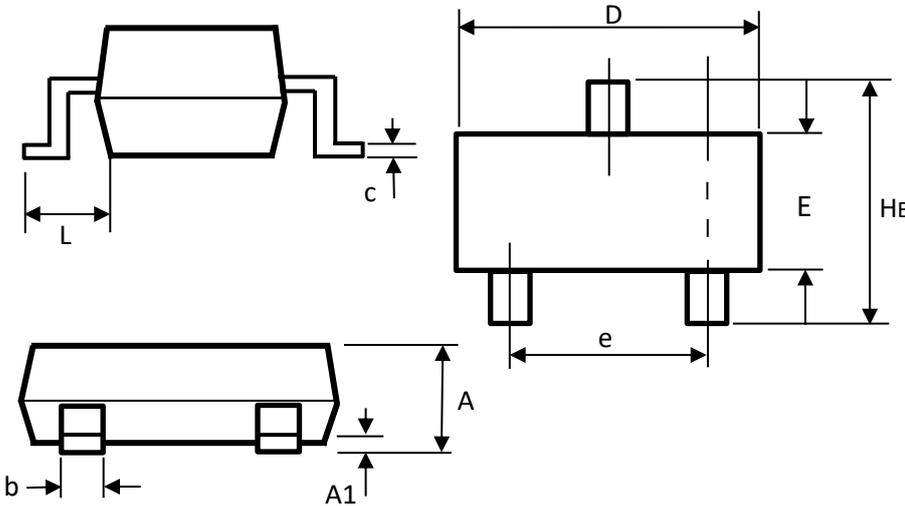
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P _{PP}	350	W
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T _J	-55 to +125	° C
Storage Temperature Range	T _{STG}	-55 to +150	° C
Soldering Temperature, t max =10s	T _L	260	° C

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Electrical Characteristics

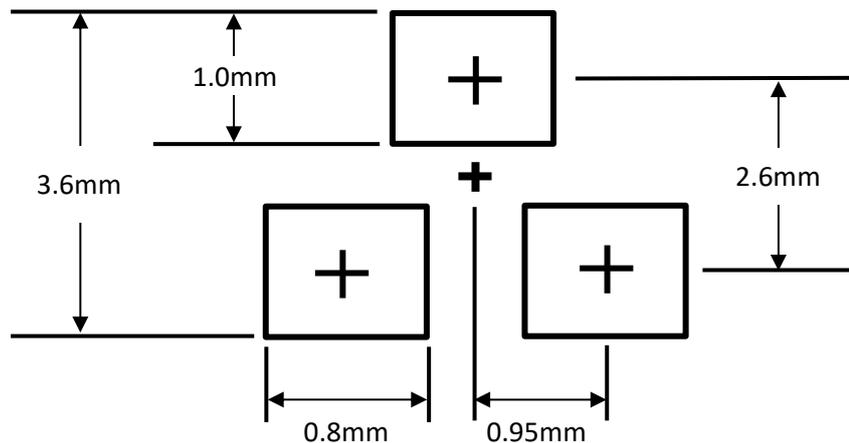
Part Number	Marking Code	Reverse Working Voltage(Max)	Reverse Breakdown Voltage(Min)	Reverse Current(Max)	Reverse Clamping Voltage(Max)	Reverse Clamping Voltage(Max)	Peak Pulse Current(Max)	Junction Capacitance (Max)
		V _{RWM} (V)	V _B (V) @I _T =1mA	I _R (μ A) @V _R =V _{RWM}	V _c (V) @I _{PP} =1A	V _c (V) @I _{PP} =Max.	I _{PP} (A)	C _j (pF) @V _R =0V, F=1MHz
H20C323V3	M03	3.3	4	40	7	17.5	20	450
H17C325V0	M05	5	6	10	9.8	20.5	17	300
H15C328V0	M08	8	8.5	2	13.4	23.5	15	240
H11C3212V	M12	12	13.3	1	19	32	11	130
H10C3215V	M15	15	16.7	1	24	35	10	120
H09C3218V	M18	18	20	1	29	39	9	100
H08C3220V	M20	20	22.3	1	35	44	8	90
H07C3224V	M24	24	26.7	1	43	52	7	80
H05C3236V	M36	36	40	1	60	71	5	60

Package Outline Dimensions

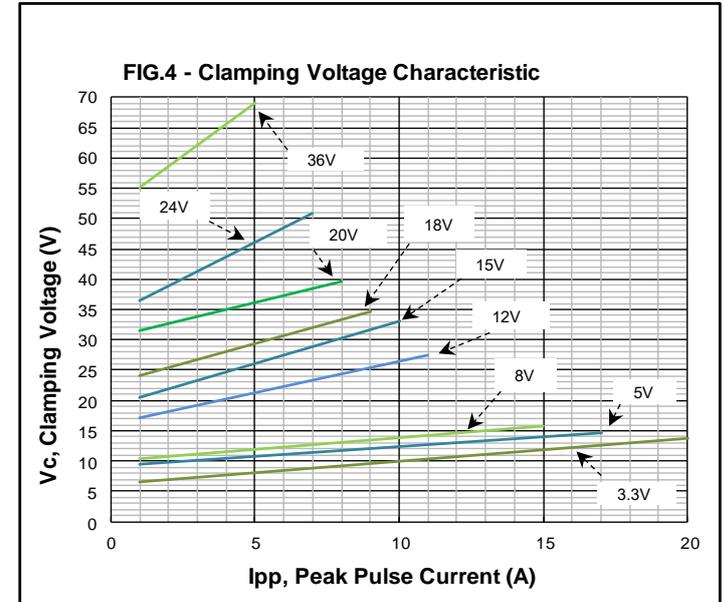
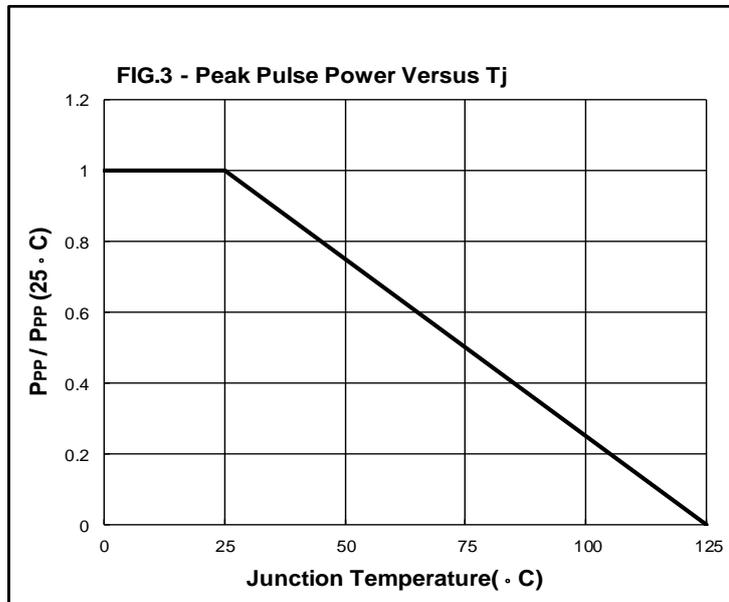
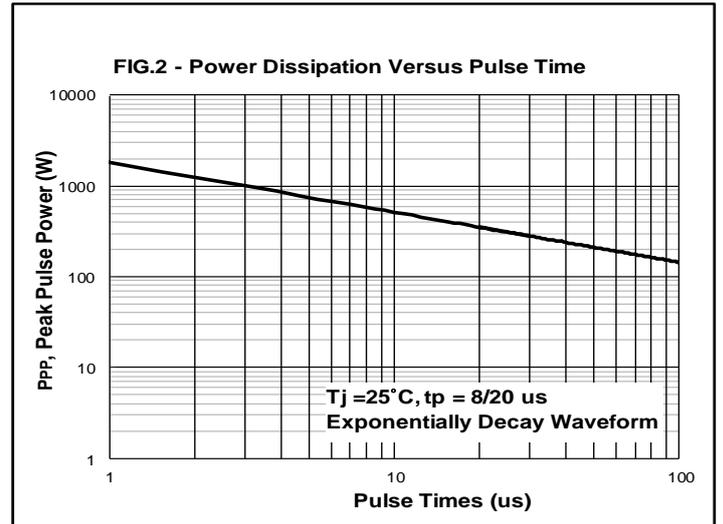
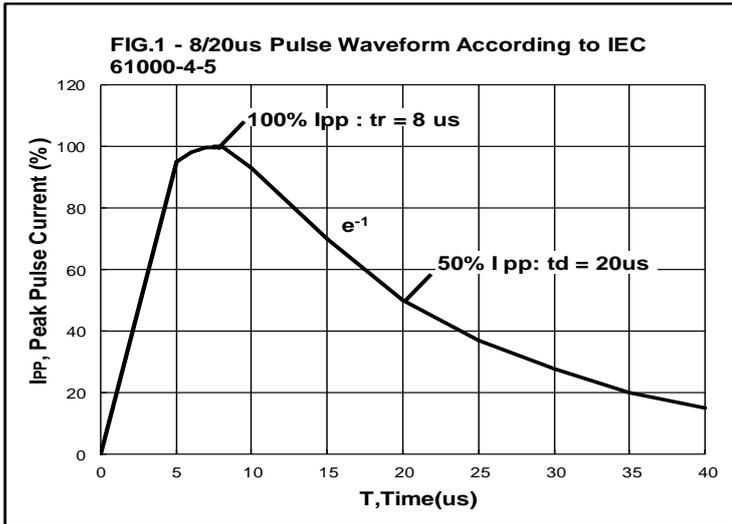


SOT23 Package		
Dim	Min	Max
A	0.89	1.11
A1	0.01	0.10
b	0.37	0.50
c	0.09	0.18
D	2.80	3.04
E	1.20	1.40
e	1.78	2.04
L	0.35	0.69
HE	2.10	2.64
All Dimensions in mm		

Suggested Soldering Pad Layout



Rating and Characteristic Curves





Disclaimer

All specifications and data are subject to be changed without notice to improve reliability function or design or other reasons.

HY makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, HY disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on HY's knowledge of typical requirements that are often placed on HY products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify HY's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, HY products are not designed for use in medical, life-saving, or life-sustaining applications or for any other applications in which the failure of the HY product could result in personal injury or death. Customers using or selling HY products not expressly indicated for use in such applications do so at their own risk. Please contact authorized HY personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of HY. Product names and markings noted herein may be trademarks of their respective owners.