

## Bi-directional ESD Protection Array

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

### Description

The HxxC32xVxB 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 Bi-directional of ESD Protection
- Peak Pulse Power :Ppp = 350W (tp=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

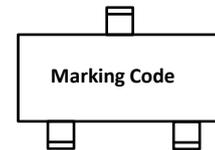
- Case: SOT23 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals:Matte tin plated,solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

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



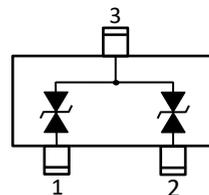
"C03" =3.3V Product Type Marking Code  
 "C05" =5V Product Type Marking Code  
 See marking code of Page 2

### Package Outline



SOT23 Top View

### Device Schematic & PIN Configuration



Pin Assignment	
1, 2	Input lines
3	Ground

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

#### Absolute Ratings

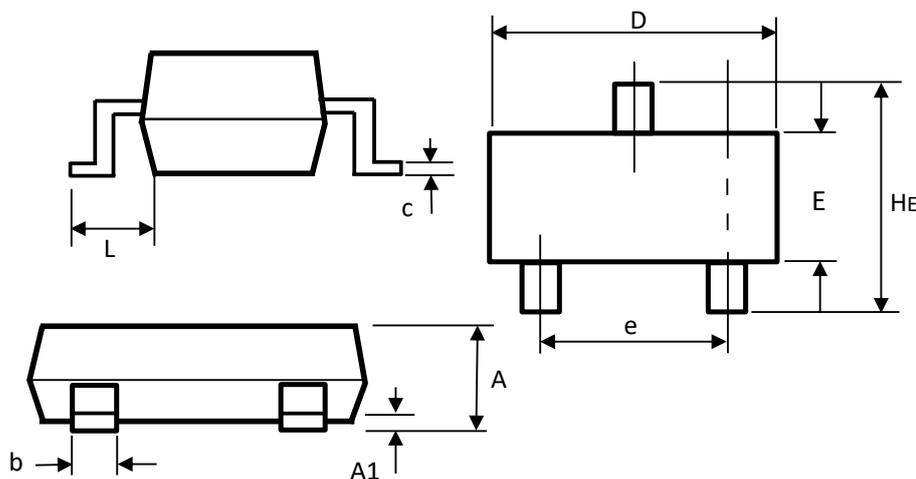
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P <sub>PP</sub>	350	W
ESD Protection- Contact (Standard IEC 61000-4-2)	V <sub>ESD</sub>	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	° C
Storage Temperature Range	T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

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

### Electrical Characteristics

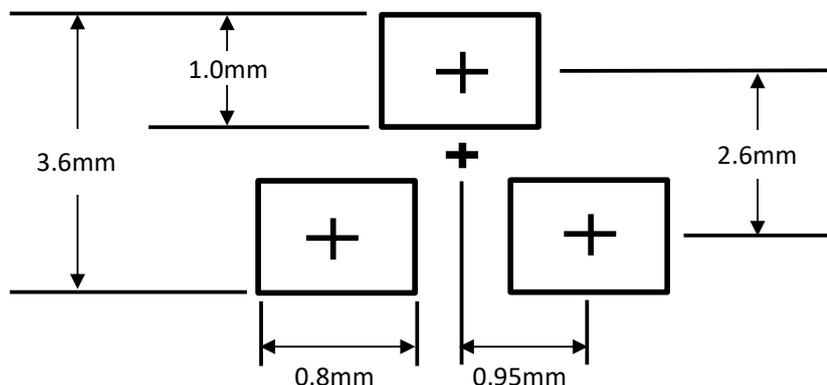
Part Number	Marking Code	Reverse Working Voltage(Max)	Reverse Breakdown Voltage(Min)	Reverse Current(Max)	Reverse Clamping Voltage(Max)	Reverse Clamping Voltage(Max)	Peak Pulse Current(Max)	Junction Capacitance (Max)
		V <sub>RWM</sub> (V)	V <sub>B</sub> (V) @I <sub>T</sub> =1mA	I <sub>R</sub> ( $\mu$ A) @V <sub>R</sub> =V <sub>RWM</sub>	V <sub>c</sub> (V) @I <sub>PP</sub> =1A	V <sub>c</sub> (V) @I <sub>PP</sub> =Max.	I <sub>PP</sub> (A)	C <sub>j</sub> (pF) @V <sub>R</sub> =0V, F=1MHz
H20C323V3B	C03	3.3	4	40	8	17.5	20	450
H17C325V0B	C05	5	6	10	9.8	20.5	17	200
H15C328V0B	C08	8	8.5	2	13.4	23.5	15	120
H11C3212VB	C12	12	13.3	1	19	32	11	75
H10C3215VB	C15	15	16.7	1	24	35	10	68
H09C3218VB	C18	18	20	1	29	39	9	57
H08C3220VB	C20	20	22.3	1	35	44	8	52
H07C3224VB	C24	24	26.7	1	43	52	7	50
H4A5C3236VB	C36	36	40	1	60	78	4.5	35

### Package Outline Dimensions



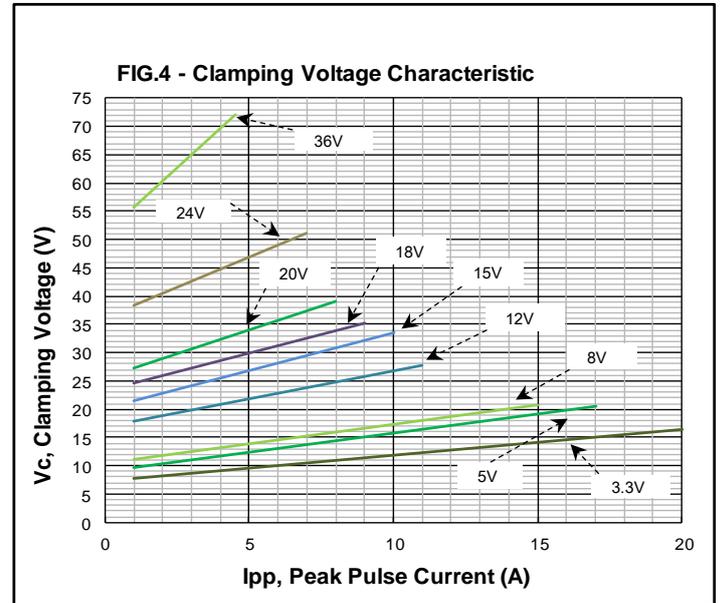
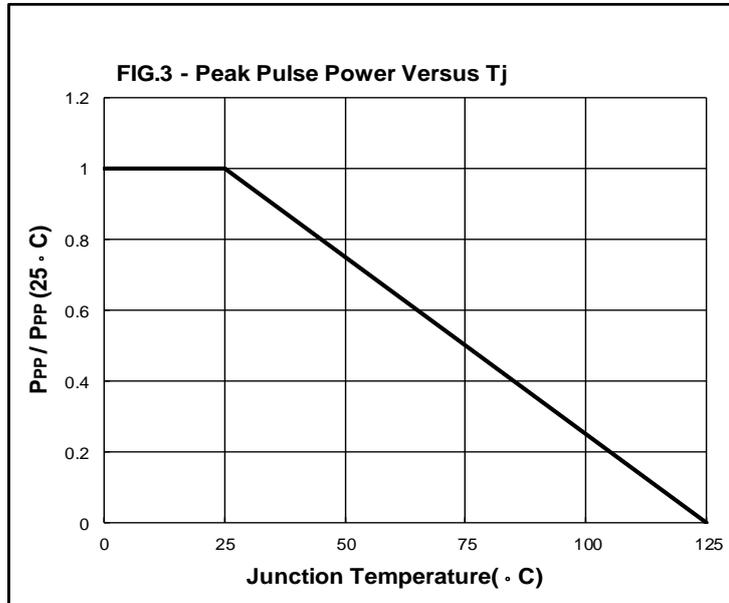
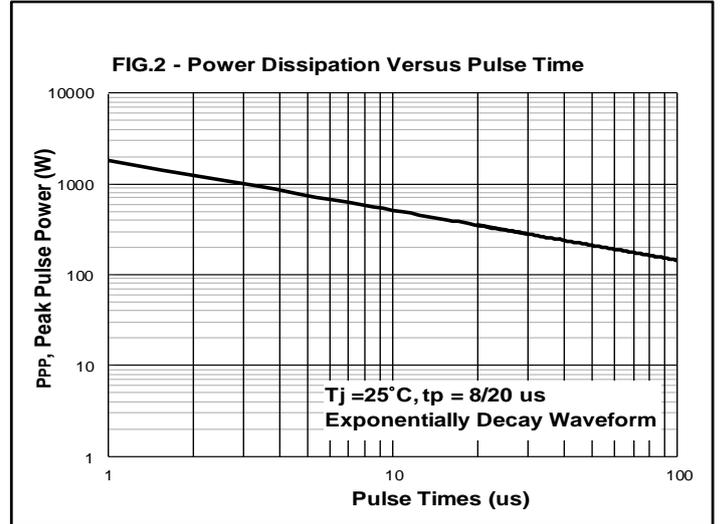
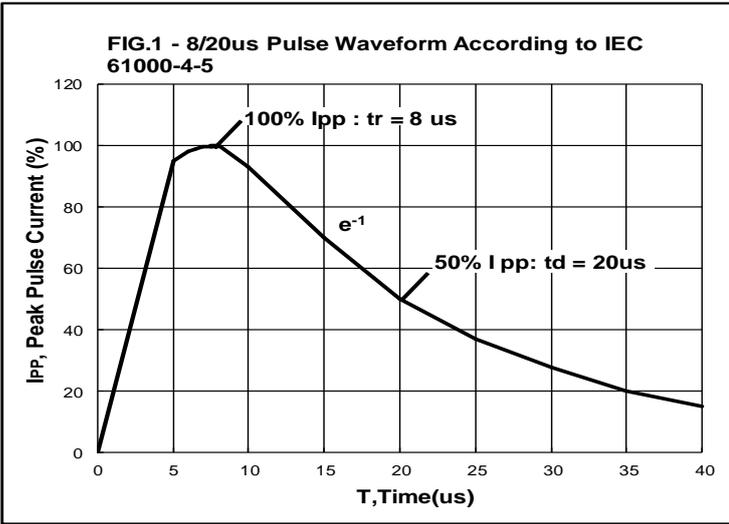
SOT23 Package		
Dim	Min	Max
A	0.89	1.11
A1	0.01	0.10
b	0.37	0.50
c	0.09	0.18
D	2.80	3.04
E	1.20	1.40
e	1.78	2.04
L	0.35	0.69
HE	2.10	2.64
All Dimensions in mm		

### Suggested Soldering Pad Layout





## Rating and Characteristic Curves





## Disclaimer

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