

Bi-directional ESD Protection Array

Peak Pulse Power - 500 Watts
Reverse Working Voltage - 5V

Description

The H23C325V0B 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

- Peak Pulse Power :Ppp = 500W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Protects Two Data Lines
- Low Clamping Voltage
- Low Leakage Current
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)

Applications

- USB2.0 power and data lines protection
- Communication system
- Notebook and PC computers
- Local area network (LAN) equipment
- Serial and parallel ports

Package Outline



SOT23 Top View

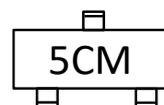
Mechanical Data

- 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

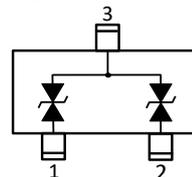
- Package :SOT23
- Reel Size :7 (inches)
- Quantity Per Reel :3,000 pcs
- Quantity One Box :45,000 pcs
- Quantity One Carton :180,000 pcs

Marking Information



" 5CM " = Product Type Marking Code

Device Schematic & PIN Configuration



Pin Assignment	
1, 2	Input lines
3	Ground

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

Absolute Ratings

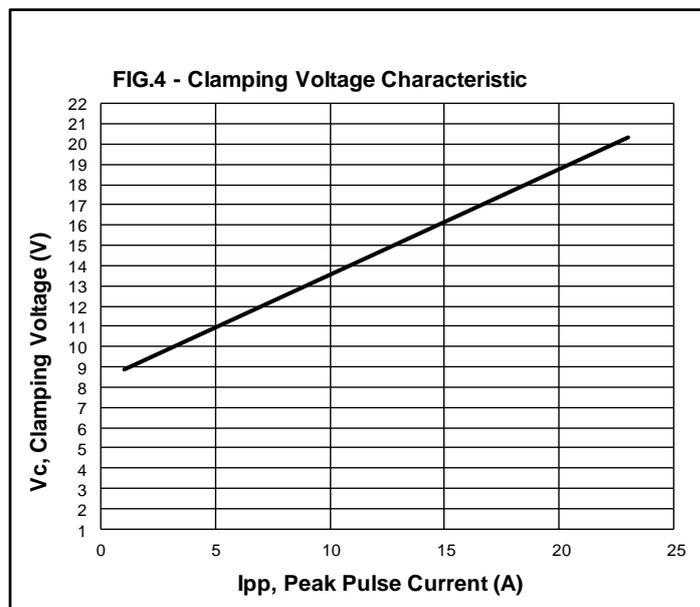
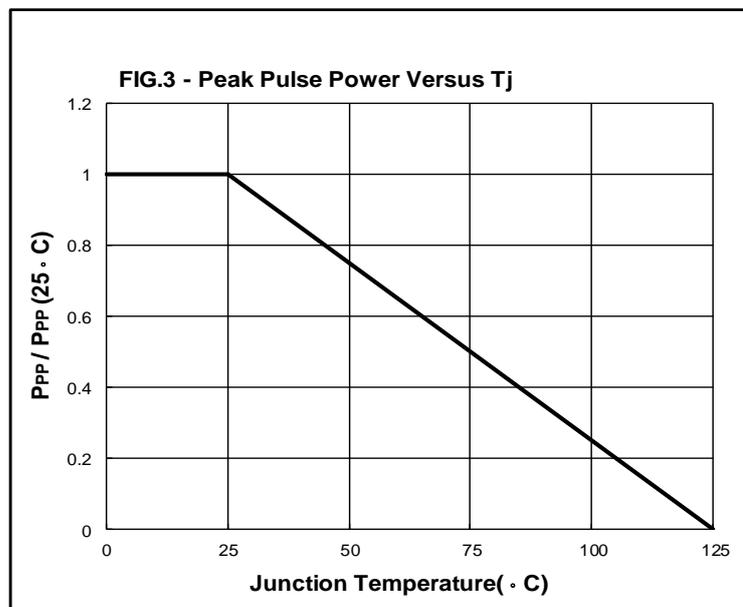
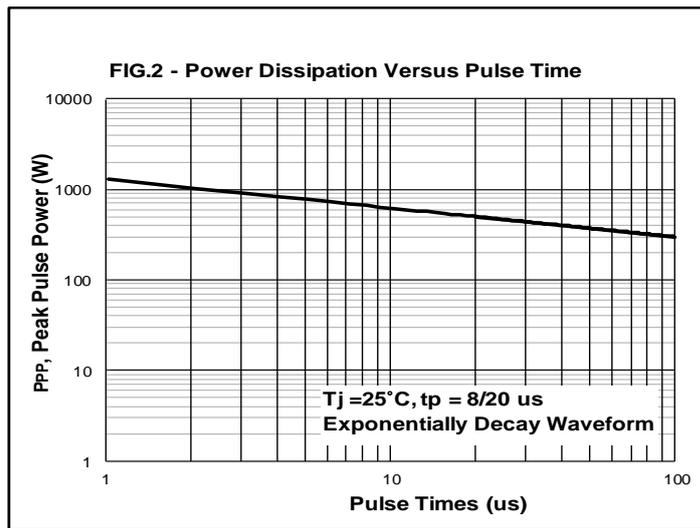
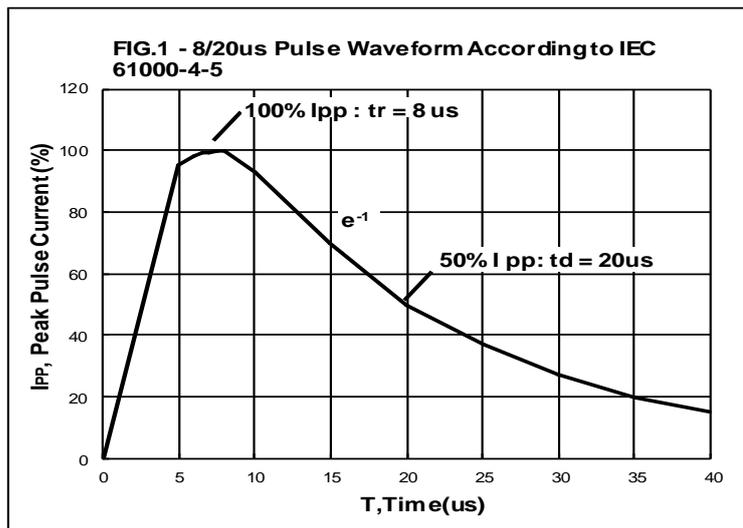
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P _{PP}	500	W
Peak Pulse Current (8/20 us)	I _{PP}	23	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±30	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T _J	-55 to +125	° C
Storage Temperature Range	T _{STG}	-55 to +150	° C

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin to ground	V _{RWM}	-	-	5	V
Reverse Breakdown Voltage	I _T = 1mA Any I/O pin to ground	V _B	5.6	-	-	V
Reverse Current	V _R = 5V Any I/O pin to ground	I _R	-	-	1.0	uA
Reverse Clamping Voltage	I _{PP} = 1A (8/20µs) Any I/O pin to ground	V _C	-	-	9.8	V
	I _{PP} = 23A (8/20µs) Any I/O pin to ground		-	-	22	
Junction Capacitance	V _R = 0V, F = 1MHz Any I/O pin to ground	C _J	-	-	65	p F

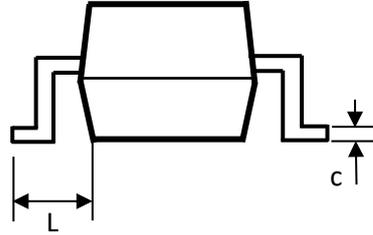
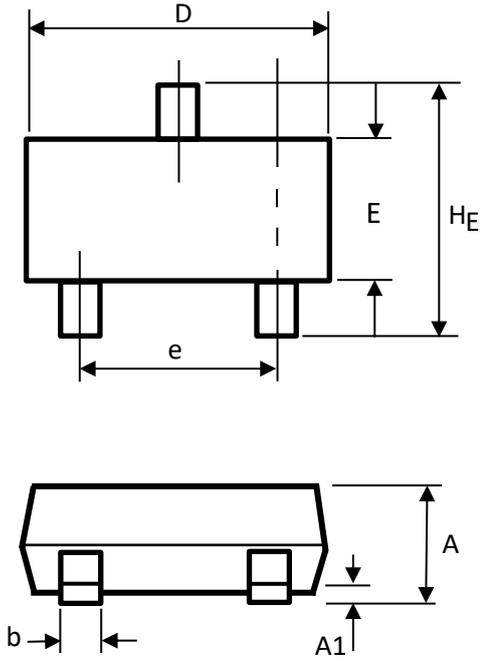


Rating and Characteristic Curves



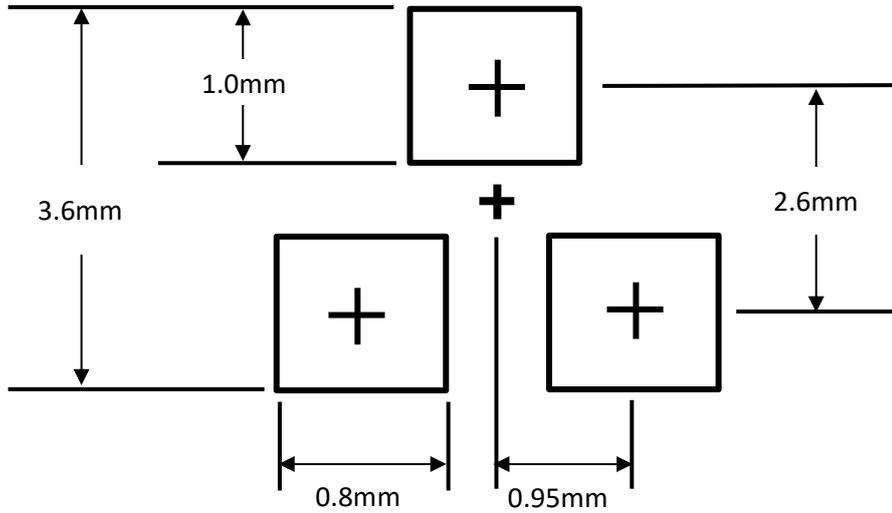


Package Outline Dimensions



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





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