Bi-directional ESD Protection Array

Peak Pulse Power - 500 Watts
Reverse Working Voltage - 3.3V

Description

The H34C323V3B 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 : 3.3V
- 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

Mechanical Data

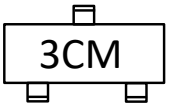
- Case: SOT23 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Terminals:Matte tin plated,solderable per MIL-STD-750,method 2026
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo HY or hy 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

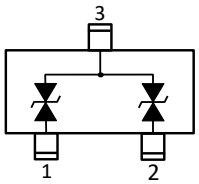


" 3CM " = Product Type Marking Code

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.)

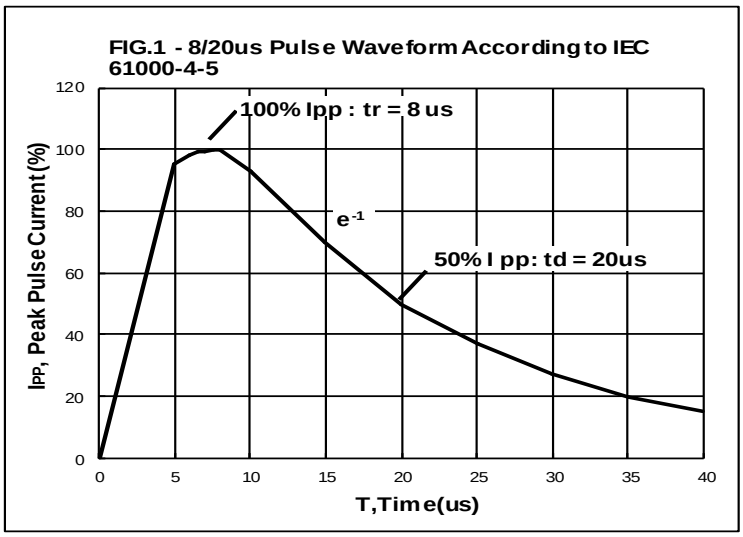
Absolute Ratings

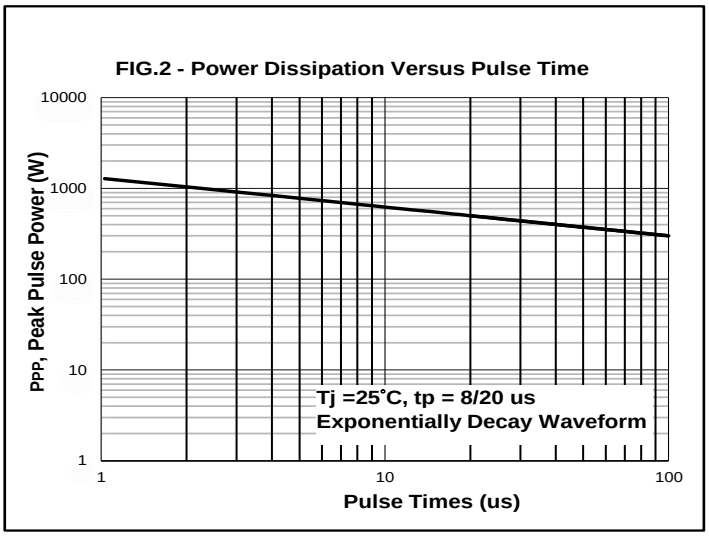
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	500	W
Peak Pulse Current (8/20 us)	I_{PP}	34	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±30	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C

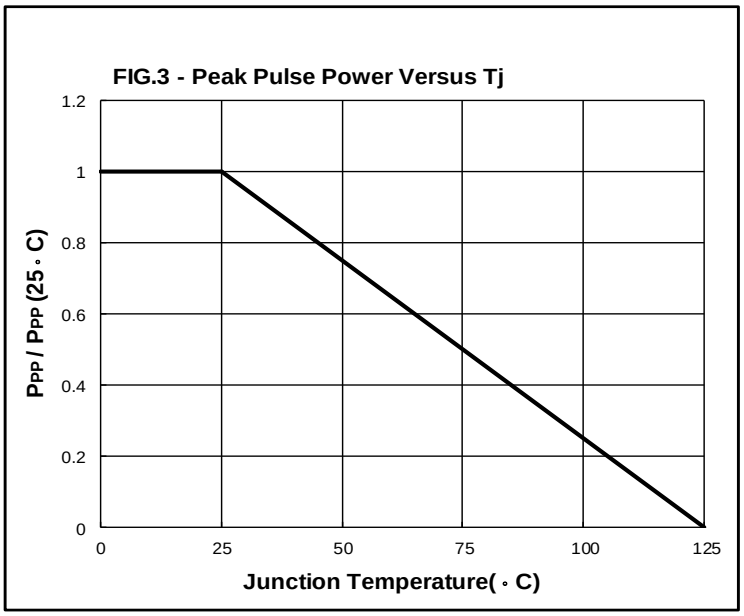
Electrical Characteristics

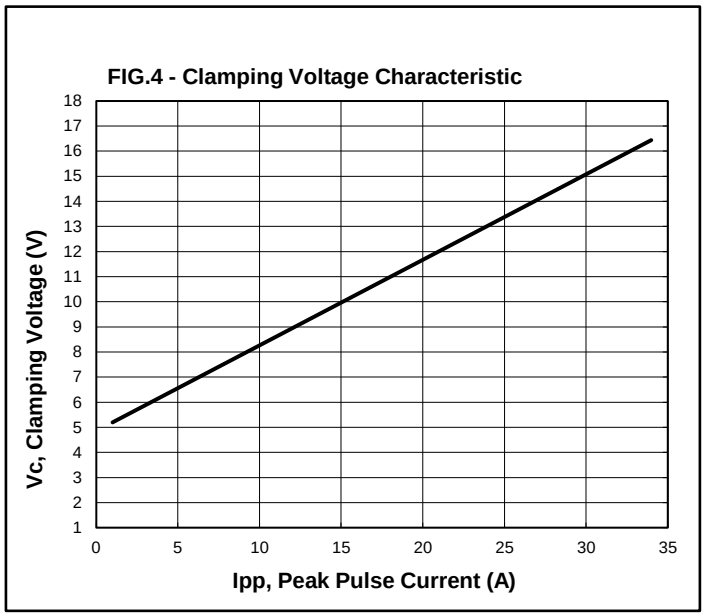
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin to ground	V_{RWM}	-	-	3.3	V
Reverse Breakdown Voltage	I_T= 1mA Any I/O pin to ground	V_B	3.6	-	-	V
Reverse Current	V_R = 3.3V Any I/O pin to ground	I_R	-	-	1	uA
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs) Any I/O pin to ground	V_C	-	-	6.5	V
	I_{PP} = 34A (8/20μs) Any I/O pin to ground		-	-	18	
Junction Capacitance	V_R = 0V, F = 1MHz Any I/O pin to ground	C_J	-	-	75	p F

Rating and Characteristic Curves



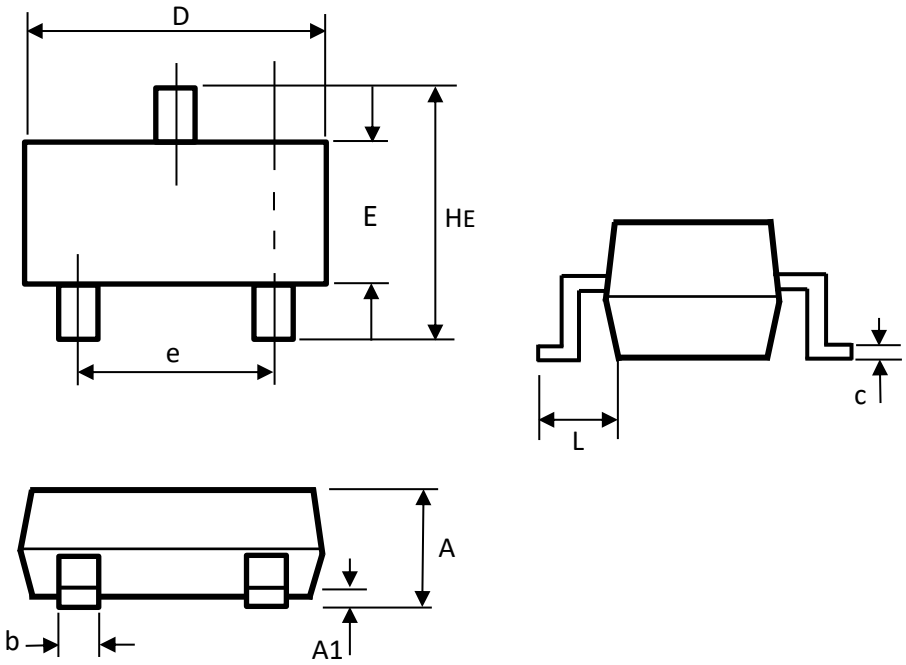






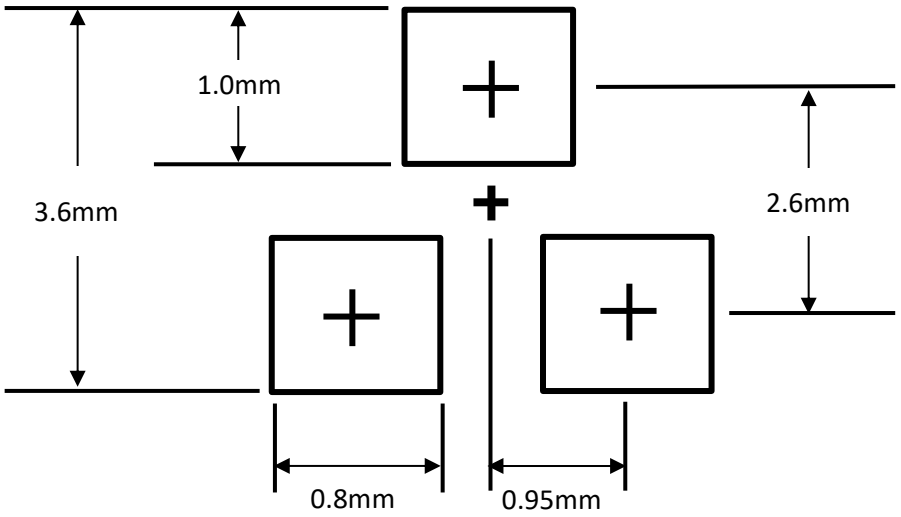
The curve above is for reference only.

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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