Uni-directional ESD Protection Array

Peak Pulse Power - 60 Watts
Reverse Working Voltage - 5.0V

Description

The H04G325V0L is designed to protect sensitive electronics from damage or latch up due to ESD and other voltage induced transient events. The device will protect two line operating at 5.0 volts.

Features

- Protects Two Data Lines
- Peak Pulse Power :Ppp = 60W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low capacitance: 0.6pF .Max (I/O to Gnd)
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±20kV(Contact) / ±25kV(Air)

Applications

- USB2.0 Power and data lines protection
- Digital Visual Interface (DVI)
- Notebook and PC Computers
- HDMI Ports

Mechanical Data

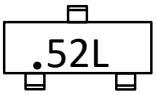
- Case: SOT523 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Terminals:Matte tin plated,solderable per MIL-STD-750,method 2026
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

- Package :SOT523
- Reel Size :7 (inches)
- Quantity Per Reel :3,000 pcs
- Quantity One Box :45,000 pcs
- Quantity One Carton :180,000 pcs

Marking Information



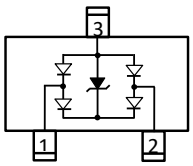
" .52L " = Product Type Marking Code

Package Outline



SOT523 Top View

Device Schematic & PIN Configuration



Pin Assignment	
1, 2	Input lines
3	Ground

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

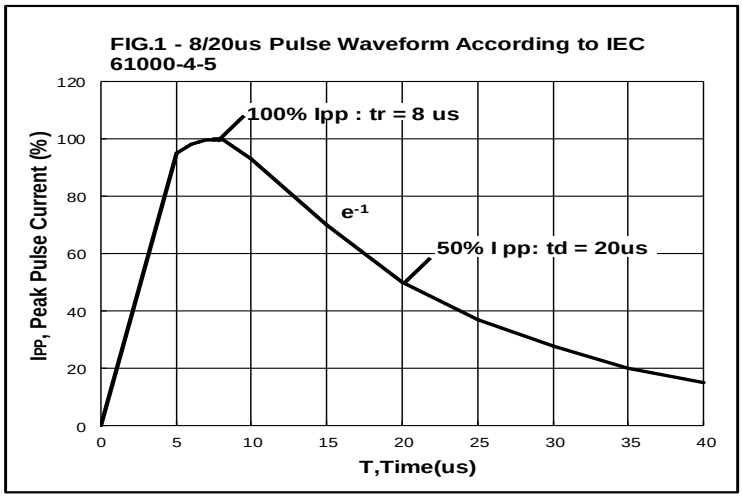
Absolute Ratings

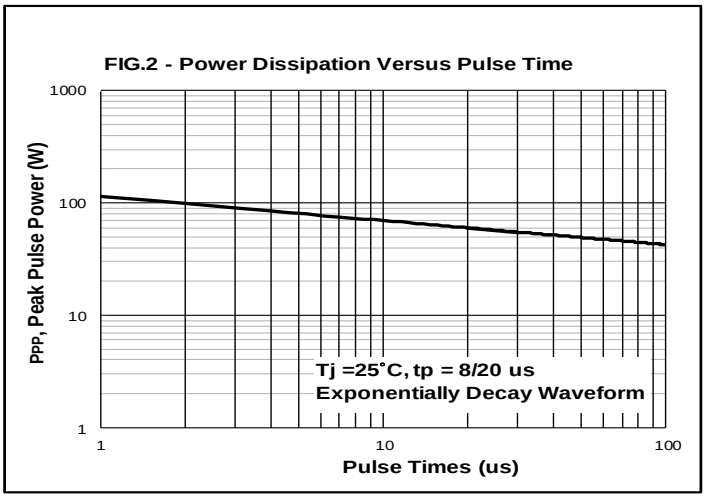
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	60	W
Peak Pulse Current (8/20 us)	I_{PP}	4	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±20	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±25	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C

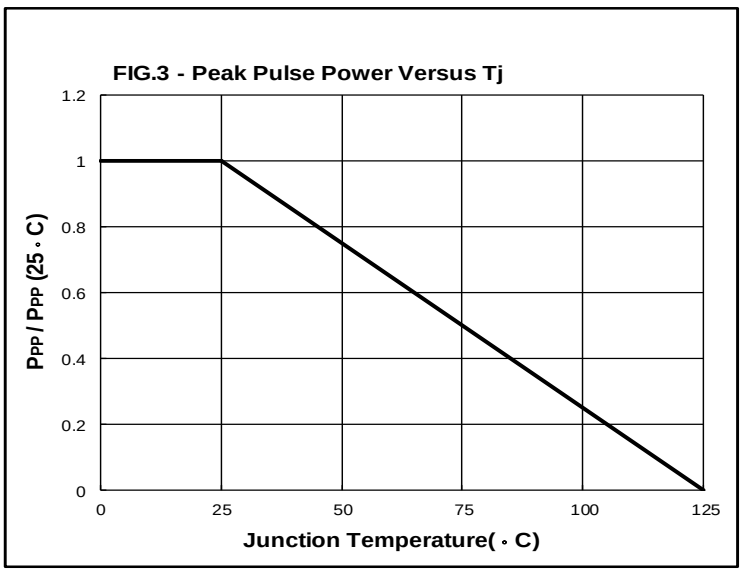
Electrical Characteristics

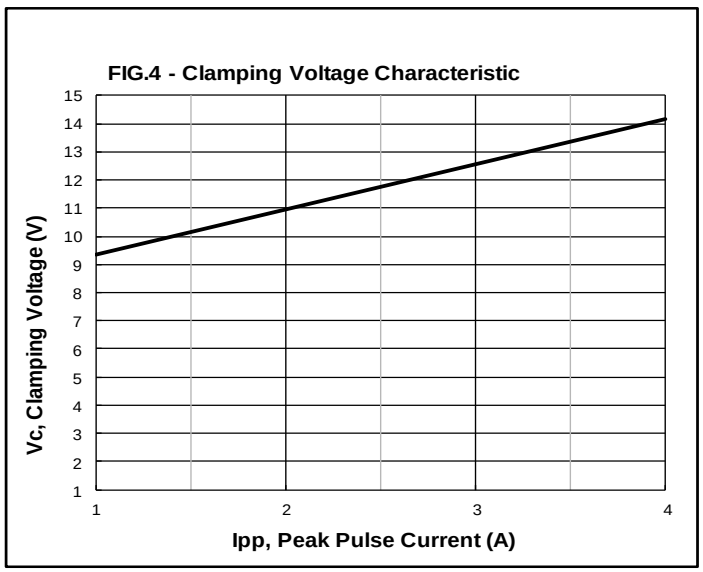
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin to ground	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage	I_T= 1mA Any I/O pin to ground	V_B	6	-	-	V
Reverse Current	V_R = 5V Any I/O pin to ground	I_R	-	-	0.5	uA
Forward Voltage	IT = 10mA Any I/O pin to ground	V_F	-	-	1.2	V
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs) Any I/O pin to ground	V_C	-	-	10	V
	I_{PP} = 4A (8/20μs) Any I/O pin to ground		-	-	15	
Junction Capacitance	V_R = 0V, F = 1MHz Any I/O pin to ground	Cj	-	0.4	0.6	p F

Rating and Characteristic Curves



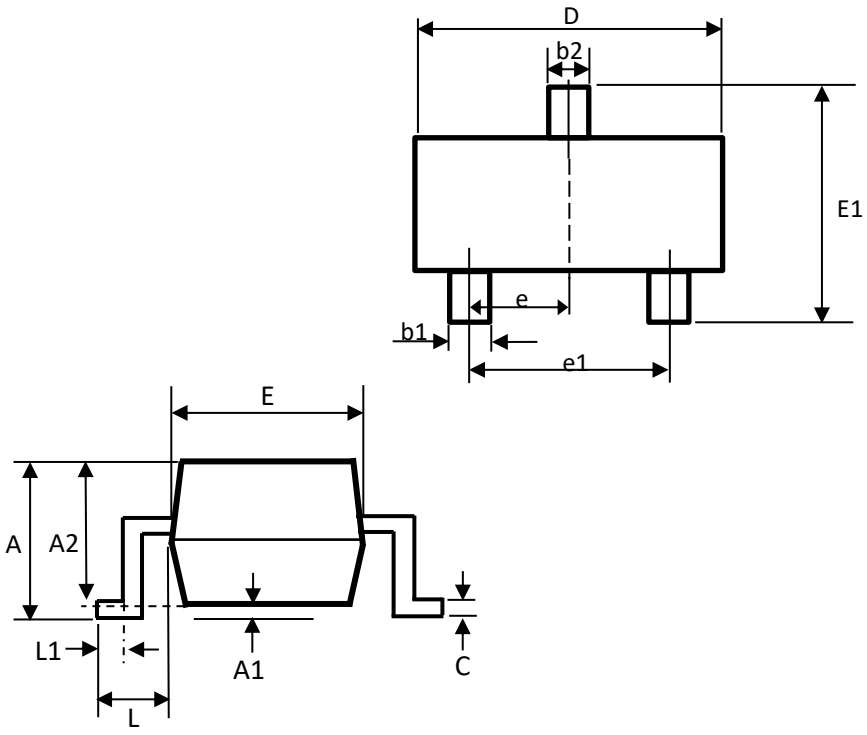






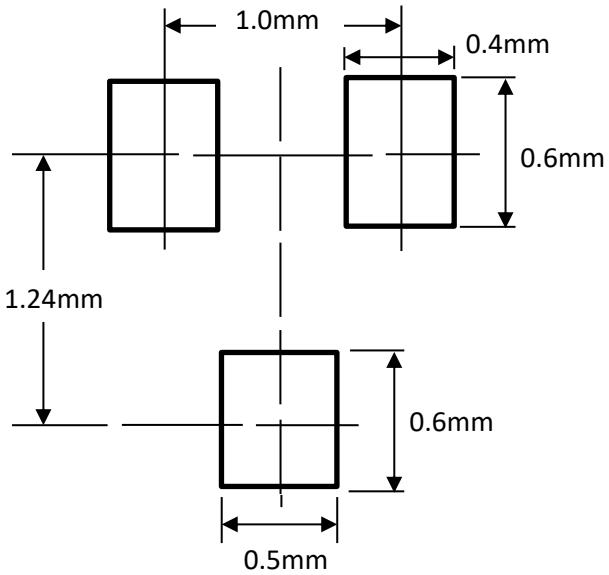
The curve above is for reference only.

Package Outline Dimensions



SOT523 Package		
Dim	Min	Max
A	0.70	0.90
A1	0.00	0.10
A2	0.70	0.80
b1	0.15	0.25
b2	0.25	0.35
C	0.10	0.20
D	1.50	1.70
E	0.70	0.90
E1	1.45	1.75
e	0.50 TYP.	
e1	0.90	1.10
L	0.40 REF.	
L1	0.10	0.3
All Dimensions in mm		

Suggested Soldering Pad Layout



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