ESD Array Protection Device

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

Description

The H27C643V3 is protect up to four lines operating at 3.3 volts.This has been specifically designed to protect sensitive components which are connected to highspeed data and transmission lines from overvoltage caused by ESD(electrostatic discharge).

Features

- Protects up to four I/O lines
- Peak Pulse Power :Ppp = 350W (tp=8/20 us)
- Reverse Working Voltage : 3.3V
- Low Clamping Voltage
- IEC 61000-4-5 (lightning) 27A (8/20μs)
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)

Applications

- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDA's) and Pagers
- Notebook and PC Computers
- Portable Instrumentation
- Cordless Phones

Mechanical Data

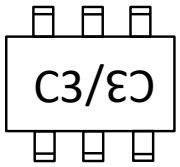
- Case: SOT26 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals:Matte tin plated,solderable per MIL-STD-750,method 2026
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

- Package :SOT26
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel
- Quantity One Carton :180,000/Tape & Reel

Marking Information



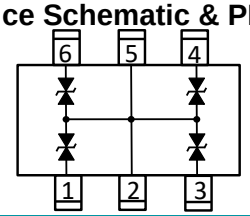
Product Type Marking Code

Package Outline



SOT26 Top View

Device Schematic & PIN Configuration



Pin Assignment	
1, 3, 4, 6	Input lines
2,5	Ground

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

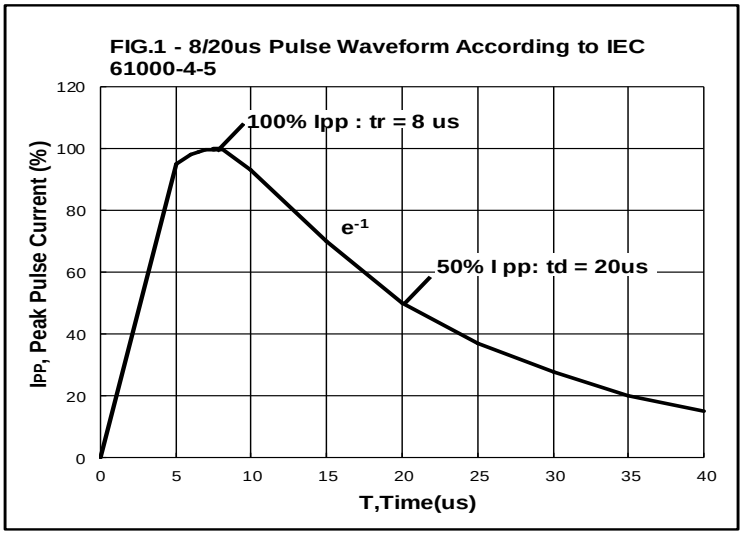
Absolute Ratings

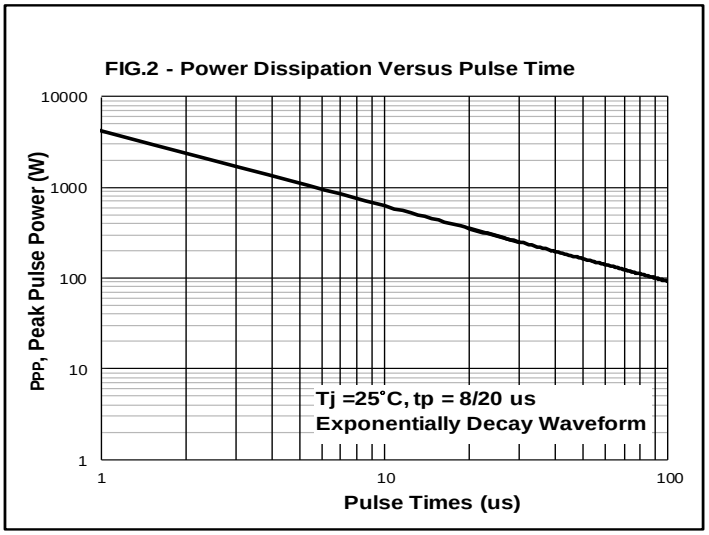
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	350	W
Peak Pulse Current (8/20 us)	I_{PP}	27	A
Operating Supply Voltage	V_{DC}	3.63	V
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±30	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C
Soldering Temperature, t max =10s	T_L	260	° C

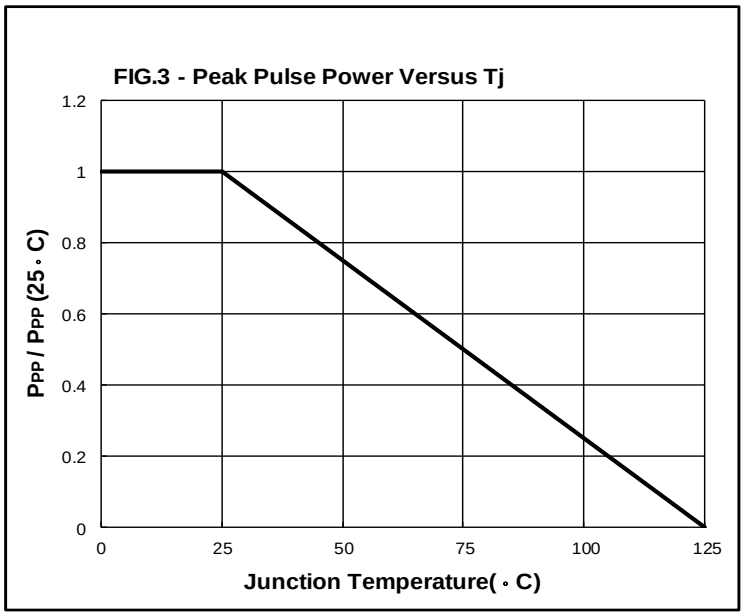
Electrical Characteristics

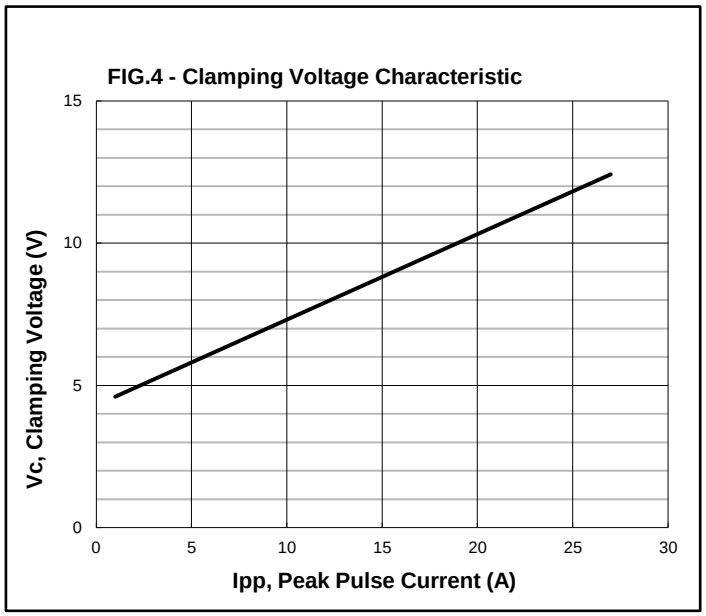
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin to ground	V_{RWM}	-	-	3.3	V
Reverse Breakdown Voltage	I_T= 1mA (Any I/O pin to ground)	V_B	3.65	-	-	V
Reverse Current	V_R = 3.3V (Any I/O pin to ground)	I_R	-	-	0.5	uA
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs) Any I/O pin to ground	V_C	-	-	5	V
	I_{PP} = 12A (8/20μs) Any I/O pin to ground		-	-	8.7	
	I_{PP} = 27A (8/20μs) Any I/O pin to ground		-	-	13	
Junction Capacitance	V_R = 0V, F = 1MHz Any I/O pin to ground	Cj	-	35	50	p F

Rating and Characteristic Curves



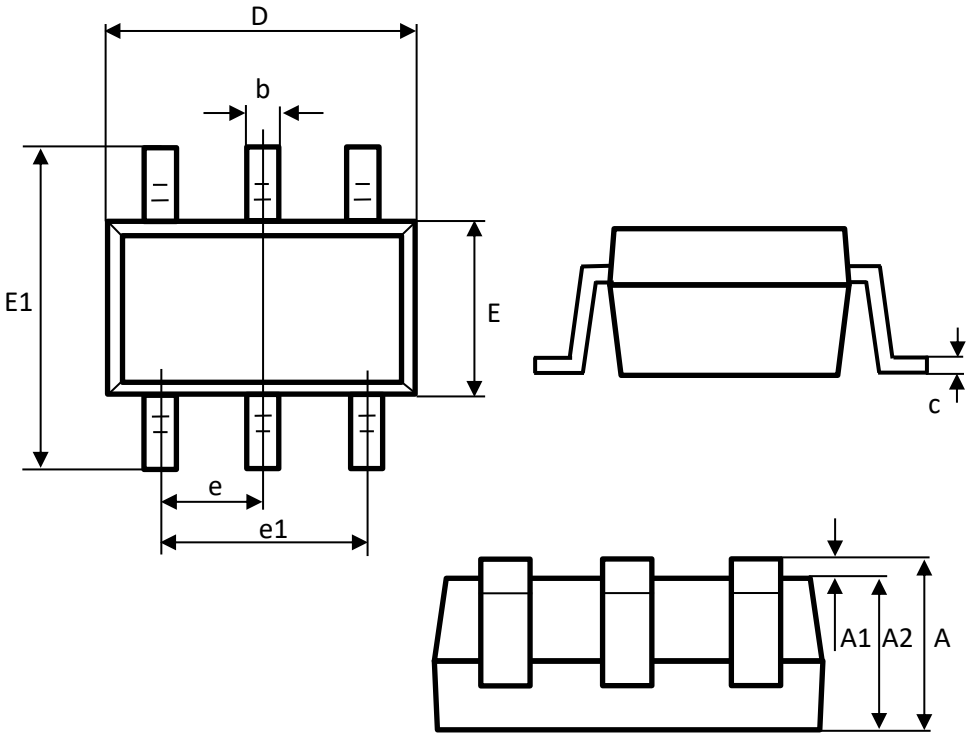






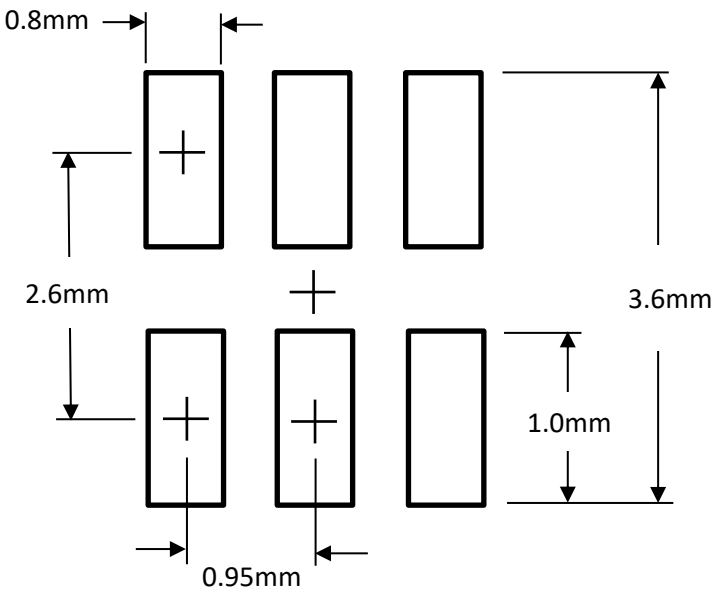
The curve above is for reference only.

Package Outline Dimensions



SOT26 Package		
Dim	Min	Max
A	1.05	1.25
A1	0.00	0.10
A2	1.05	1.15
b	0.30	0.50
c	0.10	0.20
D	2.82	3.02
E	1.50	1.70
E1	2.65	2.95
e	0.95 BSC	
e1	1.80	2.00
All Dimensions in mm		

Suggested Soldering Pad Layout



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