

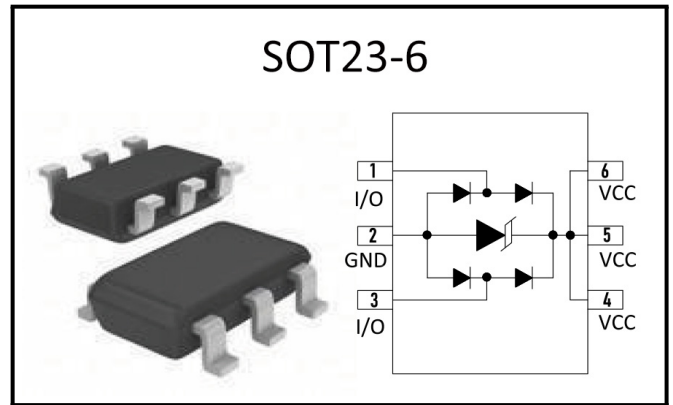
BST236A242U

ESD Protection Diode

Features

- 1125Watts peak pulse power ($t_p = 8/20\mu s$)
- Solid-state silicon-avalanche technology
- Low clamping Voltage
- Low leakage current
- Low capacitance ($C_j = 2.5pF$ typ.IO to GND)
- Protection one data/power line
- IEC 61000-4-2 $\pm 30kV$ contact ; $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 25A (8/20 μs)

Package



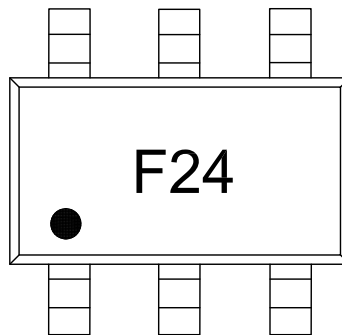
Applications

- xDSL
- Portable Electronics
- SMART Phones

Mechanical Characteristics

- SOT23-6 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Marking



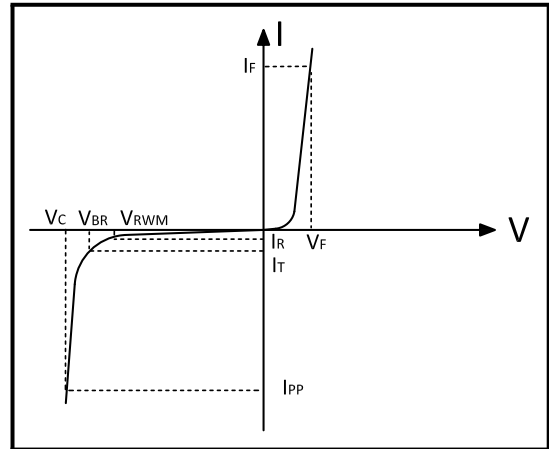
Ordering information

Order code	Package	Base qty	Delivery mode
BST236A242U	SOT23-6	3k	Tape and reel



Electrical Parameters ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note: 8/20us pulse Waveform.

Absolute Maximum Rating

Rating	Symler	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	1125	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	25	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	KV
ESD per IEC 61000-4-2 (Contact)		30	
Lead Soldering Temperature	T_L	260(10seconds)	$^\circ\text{C}$
Junction Temperature	T_J	-55 to + 150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to + 150	$^\circ\text{C}$

Electrical Characteristics

Parameter	Symler	Conditions	Min.	Typical	Max.	Units
Reverse Stand-Off Voltage	V_{RWM}	–	–	–	24	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	26	29	31	V
Reverse Leakage Current	I_R	$V_{RWM} = 24\text{V}, T = 25^\circ\text{C}$	–	0.05	0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu\text{s}$	–	–	25	A
Clamping Voltage	V_C	$I_{PP} = 25\text{A}, t_p = 8/20\mu\text{s}$	–	36	45	V
Junction Capacitance	C_j	$V_R = 0\text{V}, f = 1\text{MHZ}, \text{IO to IO}$	–	1.0	–	pF
Junction Capacitance	C_j	$V_R = 0\text{V}, f = 1\text{MHZ}, \text{IO to GND}$	–	2.5	3.0	pF





BST236A242U

ESD Protection Diode

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

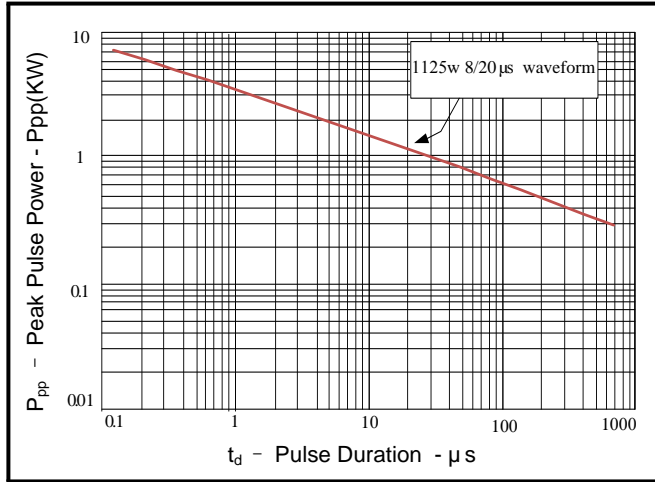


Figure 2: Power Derating Curve

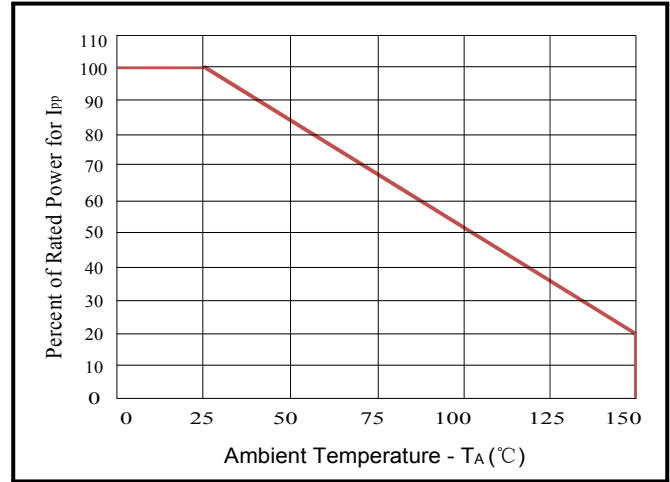


Figure 3: Pulse Waveform

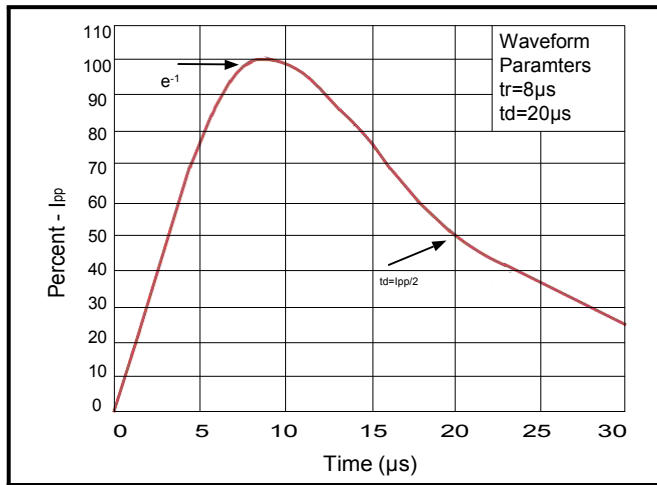
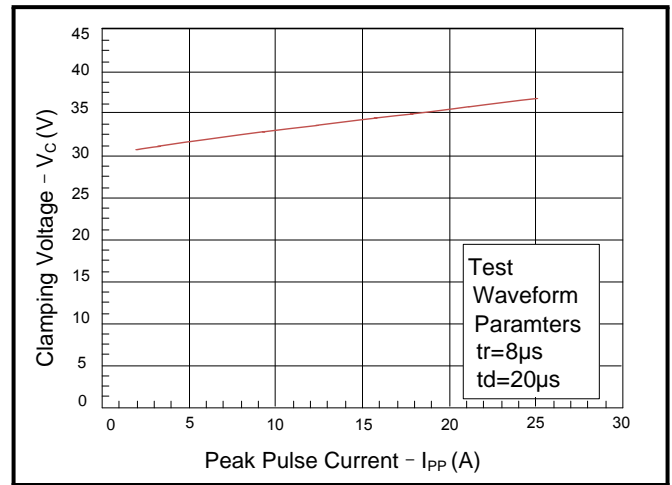


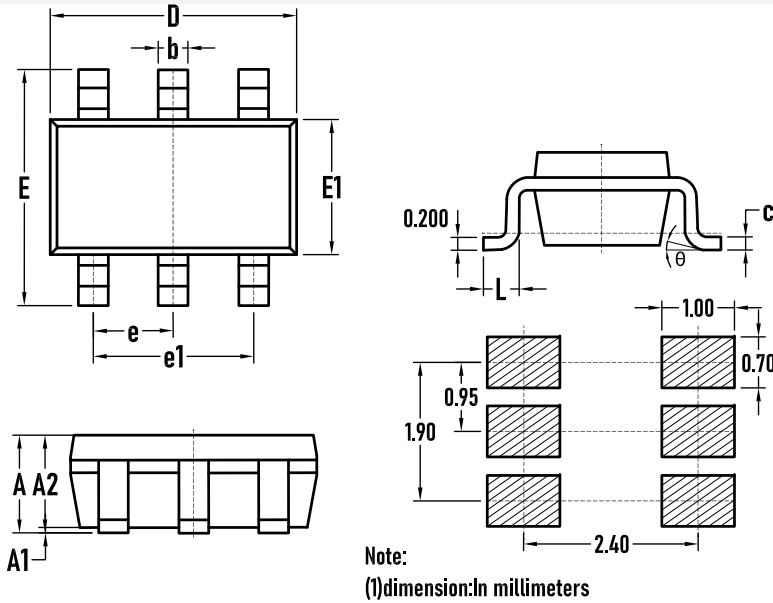
Figure 4: Clamping Voltage vs. Ipp



BST236A242U

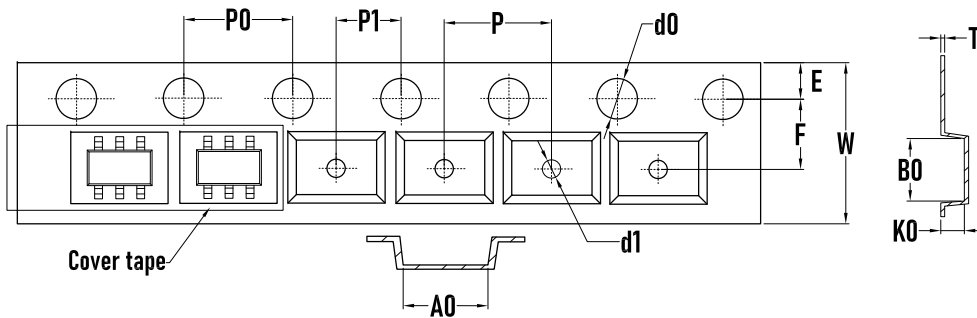
ESD Protection Diode

Outline Drawing - SOT23-6



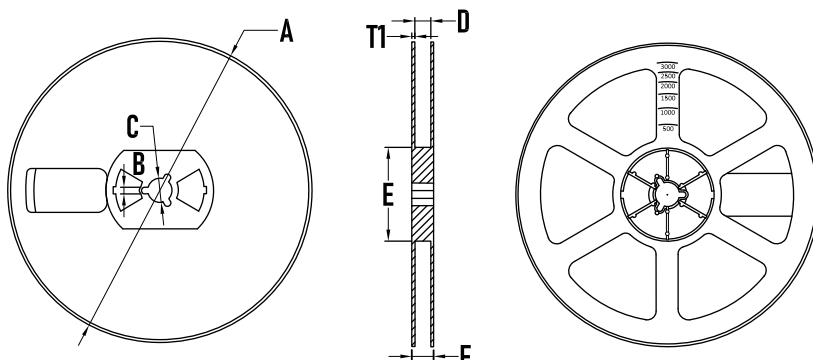
SYMBOL	MILLIMETER		Inches	
	MIN	MAX	MIN	MAX
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
C	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

Packaging Tape - SOT23-6



SYMBOL	MILLIMETER
A0	3.25±0.1
B0	3.3±0.1
d0	1.55±0.1
d1	1.0±0.1
E	1.75±0.1
F	3.50±0.1
K0	1.38±0.1
P	4.00±0.1
P0	4.00±0.1
P1	2.00±0.1
W	8.00±0.2
T	0.2±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

**BORN SEMICONDUCTOR, INC. ALL
RIGHT RESERVED**

Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

Revision: 2022-Jan-1-A



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:

Click to view products by [Bourne](#) manufacturer:

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#)
[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD112-B1-02EL E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)
[HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [SCM1293A-04SO](#)
[ESD200-B1-CSP0201 E6327](#) [SM12-7](#) [CEN955 W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [ESD101-B1-02EL](#)
[E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#) [P4KE91CATR](#) [P6KE120A](#)
[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)