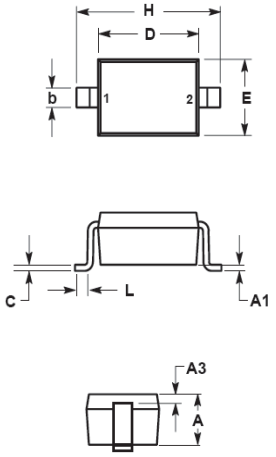
HAICHUANG SEMI

BVxxCL_Series

BIDIRECTIONAL ULTRA LOW CAPACITANCE TVS ARRAY

Features

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- IEC61000-4-5 (Lightning) 12A (8/20μs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages : 3.3V, 5V, 8V, 12V, 15V, 24V
- Low leakage current
- Response Time is < 1 ns

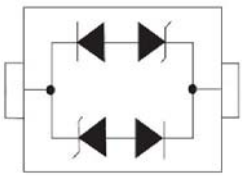


SOD-323		
Dim.	Min.	Max.
A	0.80	1.10
A1	0.00	0.10
A3	0.15 REF	
B	0.25	0.40
C	0.10	0.15
D	1.60	1.80
E	1.15	1.35
L	0.20	0.50
H	2.30	2.80
Dimensions in millimeter		

Applications

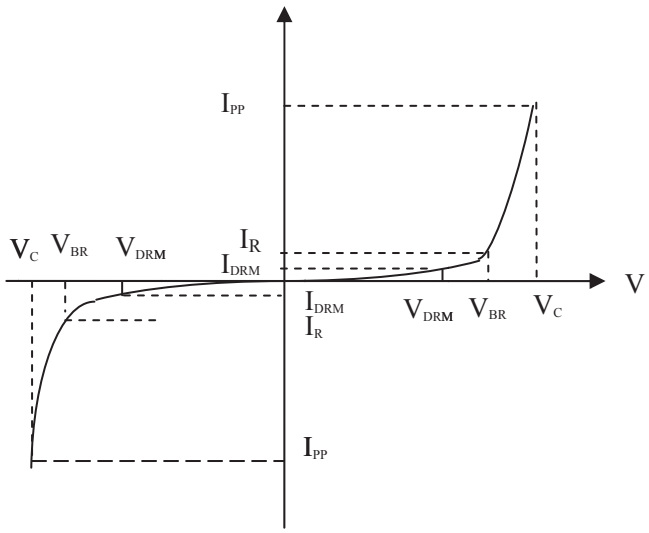
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- USB Interface

Top View



Zener I vs. V Characteristics

Parameters	Definition
V_C	Clamping Voltage
I_{pp}	Surge Waveform 8/20 μ s
V_{DRM}	Stand-off Voltage
V_{BR}	Breakdown Voltage
I_{DRM}	Reverse Leakage Current
I_R	Test Current
Ppp	Peak Pulse Power Dissipation



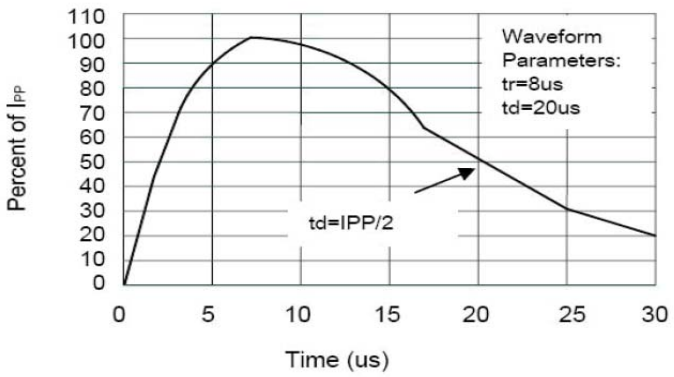
Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter		Symbol	Value	Unit
ESD per IEC 61000-4-2	Air	V_{ESD}	±15	KV
	Contact		±8	
Peak Pulse Power (tp = 8/20μs)		Ppp	300	W
Lead Soldering Temperature		T_L	260	℃
Operating Temperature Range		T_{OPT}	-55 ~ 150	℃
Storage Temperature Range		T_{STG}	-55 ~ 150	℃

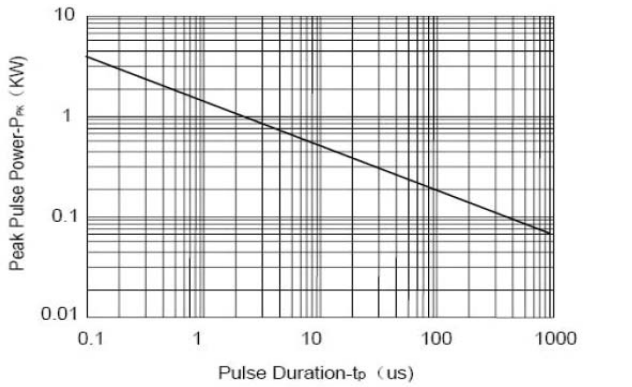
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Part Number	Rated-Stand-Off Voltage	Reverse Breakdown Voltage		Maximum Clamping Voltage @8/20μs P_{PPM}				Leakage Current	Capacitance
	V_{RWM}	V_{BR} @ I_T		V_C @ I_{PP}				I_R @ V_{RWM}	C
	Max.	Min.	I_T					Max.	Typ.
	V	V	mA	V	A	V	A	μA	pF
BV03CL	3	4	1	7	1	13.9	8	20	0.8
BV05CL	5	6	1	9.8	1	18.3	8	5	0.8
BV08CL	8	8.5	1	13.4	1	18.5	8	2	0.8
BV12CL	12	13.3	1	19	1	28.6	6	1	0.8
BV15CL	15	16.7	1	24	1	31.8	5	1	0.8
BV24CL	24	26.7	1	43	1	56	3	1	0.8

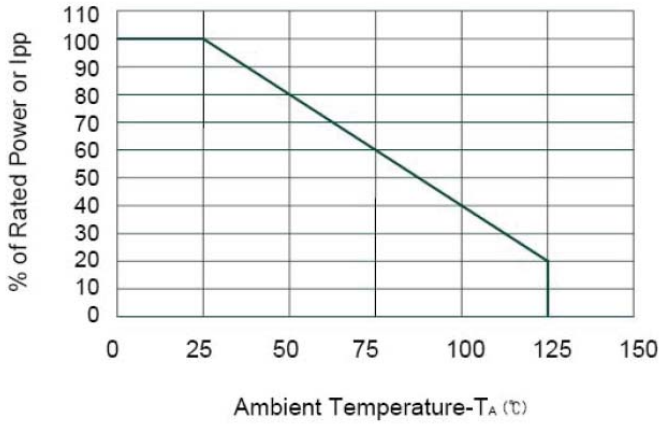
TYPICAL TRANSIENT CHARACTERISTICS



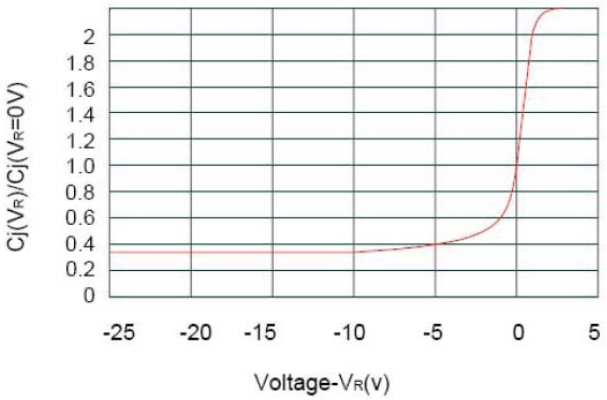
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



Junction Capacitance vs. Reverse Voltage

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