

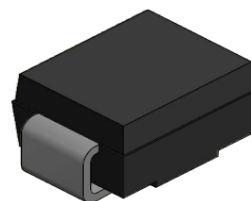
Transient Voltage Suppressor

Version: A0 2021-06-18

Features

- 1200Watts peak pulse power ( $t_p=10/1000\mu S$ )
- IEC 61000-4-2(ESD)  $\pm 30KV$ (air),  $\pm 30KV$ (contact)
- Low clamping voltage
- Moisture sensitivity level: Level 1
- Bidirectional polar

Exterior



DO214AA(SMB)

Application Information

- DC Power
- Alarm
- Other Port

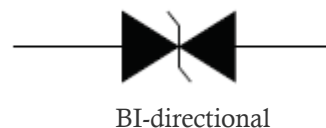
Package (Top View)



Agency Approvals

Icon	Description
<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC 61249-2-21:2003

Schematic symbol



Part Number and Electrical Parameter

Part Number	$I_R@V_R$		$V_{BR}@I_t$			$V_C@I_{pp}^{①}$	
	$\mu A$	V	V		mA	V	A
	MAX		MIN	MAX		MAX	
BV-SMBJ28CAH	1	28	30	36	1	48	25

Absolute maximum ratings measured at  $T=25^{\circ}C$  RH = 45%-75% (unless otherwise noted).

① Surge Waveform: 10/1000 $\mu S$

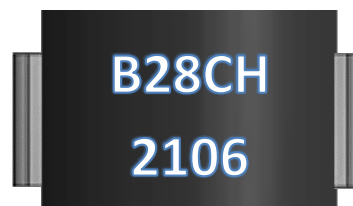
Part Number System

BV SMBJ 28 C A H

(1) (2) (3) (4) (5) (6)

- (1) Bencent TVS
- (2) SMB Package
- (3)  $V_R=28V$
- (4) Bidirectional polar
- (5) Suffix 'A' denotes 5% tolerance devices
- (6) Bencent internal code

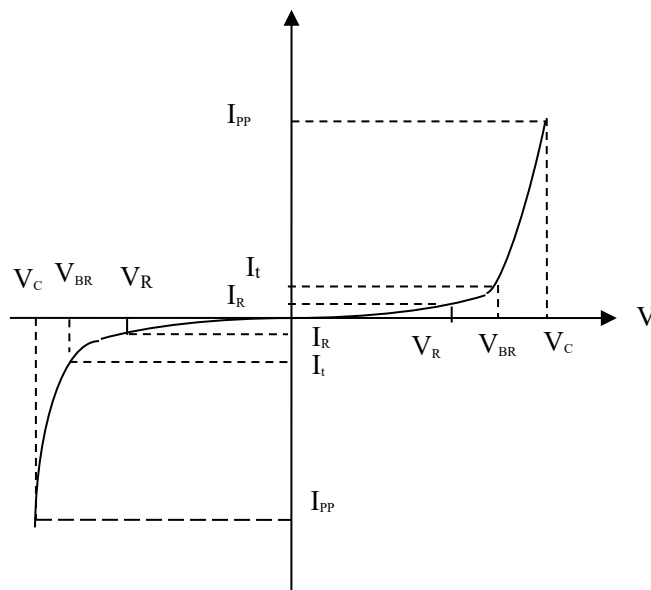
Mark



B28CH: Part Number  
2106:June,2021

### V-I Curve

Parameters	Definition
$V_C$	Clamping voltage
$I_{PP}$	Surge waveform 10/1000 $\mu$ s
$V_R$	Stand-off Voltage
$V_{BR}$	Breakdown Voltage
$I_R$	Reverse Leakage Current
$I_t$	Test current
$P_{pp}$	Peak Pulse Power Dissipation



### Thermal Considerations

symbol	Parameter	Value	Unit
$T_J$	Operating Junction Temperature Range	-55 to +150	$^{\circ}$ C
$T_S$	Storage Temperature Range	-55 to +150	$^{\circ}$ C

### Environmental Characteristics

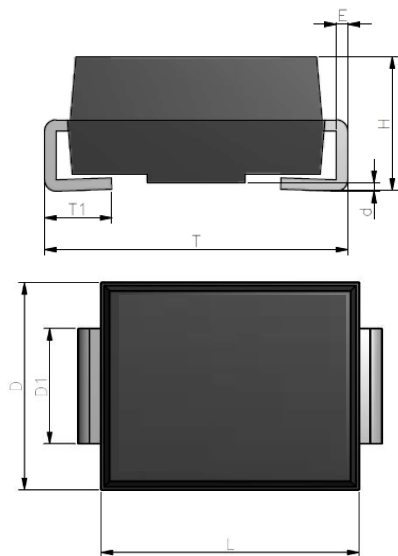
Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature: $150 \pm 3^{\circ}$ C, Bias=80% $V_{DRM}$ Time: 168H
High Temperature Life Test	Temperature: $150^{\circ}$ C Time: 168H
High-low Temperature Cycle Test	Temperature: From $-40^{\circ}$ C to $125^{\circ}$ C Dwell time: 30min, 100 cycles
High Temperature & High Humidity Test	Temperature: $85^{\circ}$ C Humidity: 85% Test time: 168H
Pressure Cooker Test	Temperature: $121^{\circ}$ C, 2atm. Humidity: 100% Test time: 168H
Resistance of Soldering Heat	Temperature: $260 \pm 5^{\circ}$ C Time of dip soldering: 10s, 3times

Note: The above testing items can be specified by customers by contacting Bencent service

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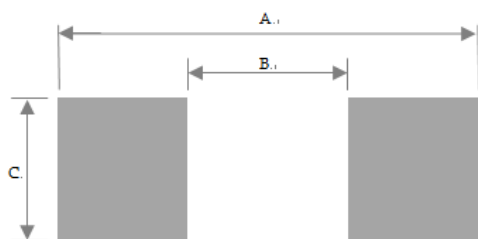
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Product Dimensions



REF.	mm	inch
D	3.6±0.3	0.142±0.012
D1	2±0.15	0.079±0.006
L	4.6±0.3	0.181±0.012
T	5.4±0.3	0.213±0.012
T1	1.1±0.3	0.043±0.012
d	0~0.4	0~0.016
H	2.10~2.60	0.083~0.102
E	0.18~0.25	0.007~0.010

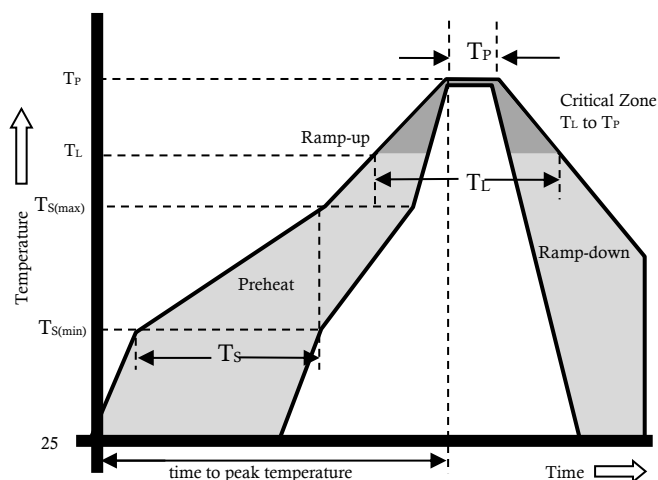
Recommended Soldering Pad



REF	mm	inch
A	5.45	0.215
B	2.45	0.097
C	2.15	0.085

Reflow Profile

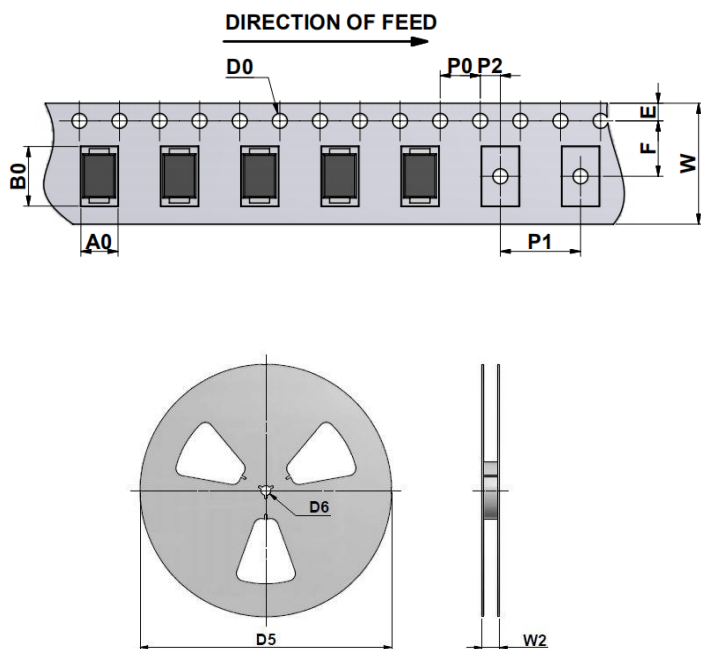
Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time (Min to Max)	60 – 180 secs.
Average ramp up rate (Liquidus Temp (T <sub>L</sub> ) to peak)		3°C/sec. Max.
T <sub>S</sub> (max) to T <sub>L</sub> - Ramp-up Rate		3°C/sec. Max.
Reflow	- Temperature (T <sub>L</sub> ) (Liquidus)	+217°C
	- Temperature (T <sub>L</sub> )	60 – 150 secs.
Peak Temp (T <sub>P</sub> )		+(260±0/-5)°C
Time within 5°C of actual Peak Temp (T <sub>P</sub> )		30 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T <sub>P</sub> )		8 min. Max.
Do not exceed		+260°C



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Package Reel Information



REF.	mm	inch
W	12±1	0.472±0.039
E	1.75±0.3	0.069±0.012
F	5.5±0.3	0.217±0.012
D0	1.55±0.15	0.061±0.006
P0	4.0±0.2	0.157±0.008
P1	8.0±0.2	0.315±0.008
P2	2.0±0.2	0.079±0.008
A0	3.6±0.3	0.142±0.012
B0	5.7±0.3	0.224±0.012
D5	Ø330	Ø13
D6	Ø13.5±1.0	Ø0.531±0.039
W2	18±2.0	0.709±0.079

OUTLINE	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)	CARTON SIZE(mm)		
				L	W	H
TAPING	3,000	48,000	330	360	360	385

单击下面可查看定价，库存，交付和生命周期等信息

[>>Bencent \(槟城\)](#)