

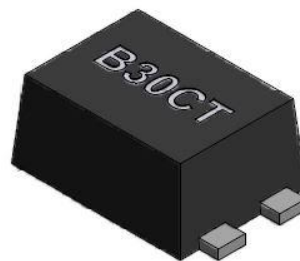
Transient Voltage Suppressor

Version: A0 2018/7/20

Features

- IEC 61000-4-2(ESD) $\pm 15\text{KV}(\text{air})$, $\pm 8\text{KV}(\text{contact})$
- Surge rating :200A@8/20us
- Quick response to surge voltage
- Bi-directional
- Moisture sensitivity level: level 1

Exterior



SMB-T

Application Information

- DC Power

Agency Approvals

Icon	Description
RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

Part Number and Electrical Parameter

Part Number	$I_R@V_R$		$V_{BR}@I_T$		$I_{pp}^{①}$
	μA	V	V	mA	A
	MAX		MIN		MAX
BV-SMBT-30CA	1	30	32	1	200

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

① Surge Waveform: 8/20us

Part Numbering System

BV — SMBT — 30 C A
(1) (2) (3) (4) (5)

- (1) Bencent TVS
- (2) Package: SMB-T
- (3) $V_R = 30\text{V}$
- (4) Bi-directional polar
- (5) Suffix 'A' denotes 5% tolerance devices

Mark



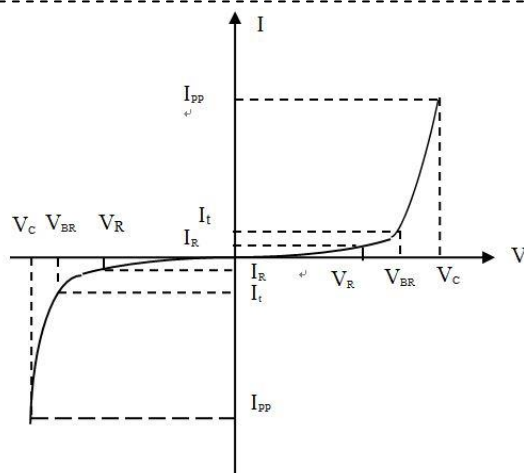
B30CT: Part Number

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V-I Curve

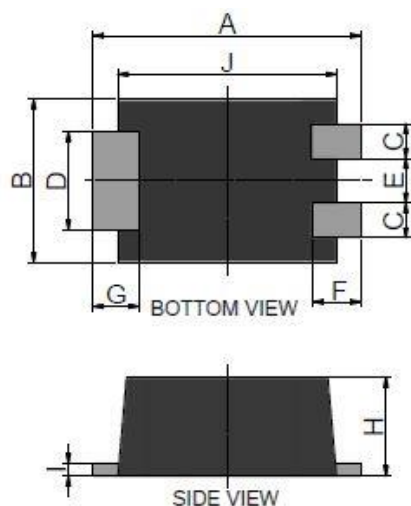
Parameters	Definition
V_C	Clamping Voltage
I_{PP}	Surge Waveform 8/20us
V_R	Stand-off Voltage
V_{BR}	Breakdown Voltage
I_R	Reverse Leakage Current
I_t	Test Current
P_{pp}	Peak Pulse Power Dissipation



Thermal Considerations

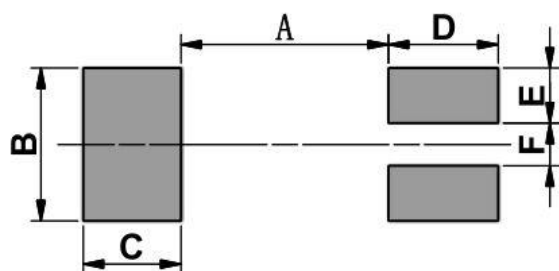
symbol	Parameter	Value	Unit
T_J	Operating Junction Temperature Range	-40 to +125	°C
T_S	Storage Temperature Range	-40 to +125	°C

Product Dimensions



REF	mm	inch
A	5.4±0.3	0.213±0.012
B	3.3±0.3	0.130±0.012
C	0.7±0.15	0.028±0.006
D	2.0±0.2	0.079±0.008
E	0.9±0.2	0.035±0.008
F	0.8±0.3	0.031±0.012
G	0.8±0.3	0.031±0.012
H	2±0.3	0.079±0.012
I	0.25±0.05	0.010±0.002
J	4.4±0.2	0.173±0.008

Recommended Soldering Pad



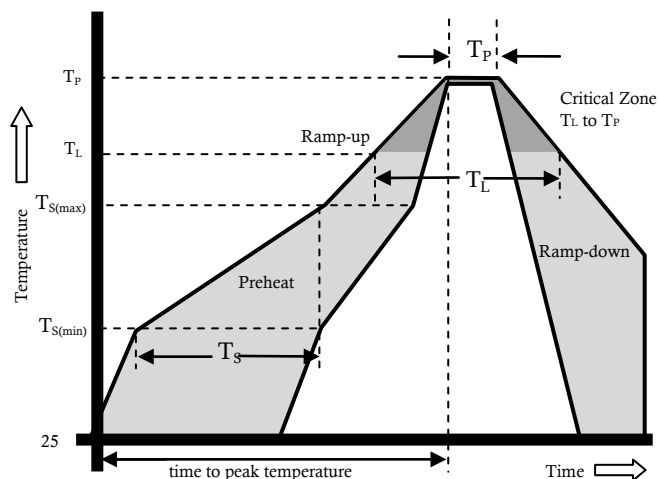
REF	mm	inch
A	3.45	0.136
B	2.4	0.094
C	1.15	0.045
D	1.4	0.055
E	1.0	0.039
F	0.7	0.028

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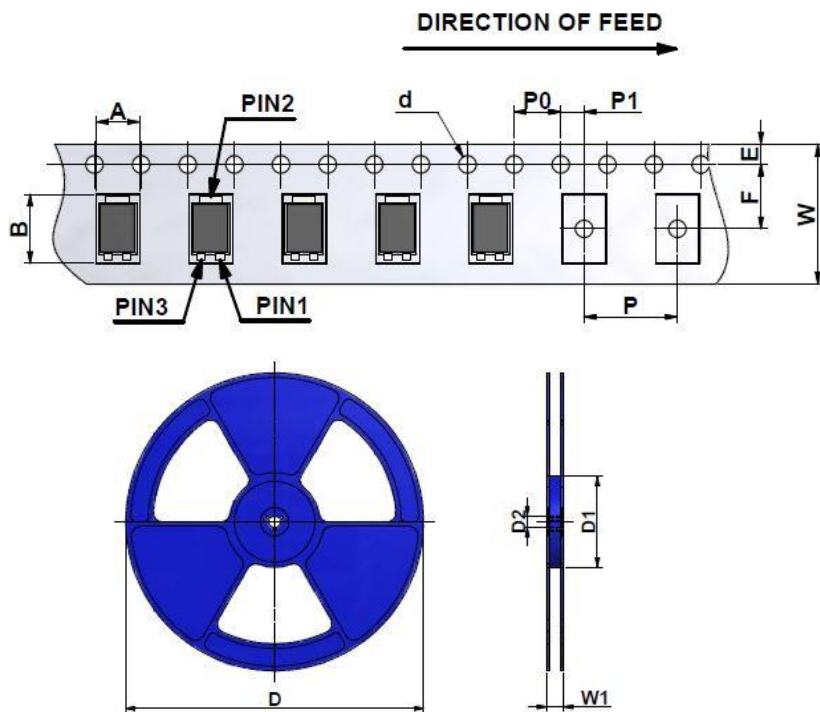
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Reflow Profile

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_L) to peak)		3°C/sec. Max.
T_S (max) to T_L - Ramp-up Rate		3°C/sec. Max.
Reflow	- Temperature (T_L) (Liquidus)	+217°C
	- Temperature (T_L)	60 – 150 secs.
Peak Temp (T_P)		+(260+0/-5)°C
Time within 5°C of actual Peak Temp (T_P)		8~15 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T_P)		8 min. Max.
Do not exceed		+260°C



Package Reel Information



REF	mm	inch
A	3.9±0.2	0.154±0.008
B	5.8±0.2	0.228±0.008
d	1.5±0.1	0.059±0.004
D	330.0	13.0
D1	100±3	3.937±0.118
D2	13±0.3	0.512±0.012
E	1.75±0.2	0.069±0.008
F	5.5±0.25	0.217±0.010
P	8.0±0.2	0.315±0.008
P0	4.0±0.2	0.157±0.008
P1	2.0±0.2	0.079±0.008
W	12.0±0.2	0.472±0.008
W1	16.8±2.0	0.661±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