

## SuperTVS –3500W Transient Voltage Suppressor

### 1. Features

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Fast response time
- Typical IR less than 1μA above 58V
- Plastic package has underwriters laboratory flammability 94V-0
- High Temperature soldering: 260°C/10 seconds at terminals

### 2. Mechanical Data

- Low clamping voltage
- IEC 61000-4-2(ESD)±15KV(air)  
±8KV(contact)
- Small package: SMB
- Moisture sensitivity level: Level 1
- Max surge capability: 4KV@10/700us

### 3. Application Information

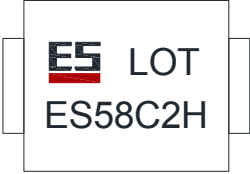

- POE
- DC-48V

### 4. Ordering Information

Part Number	Packag e	Marking	Materia l	Packin g	Quantit y per reel	Flammabilit y Rating	Reel Sizes
BV-SMBJ58C2H-ES	SMB	BV-SMBJ58C2H-ES /LOT	Halogen free	Tape & Reel	3,000 PCS	UL 94V-0	13 Inches

Table-1 Ordering Information

### 5. Outline and Circuit Diagram

Outline	Circuit Diagram
	

### 6. Maximum Ratings and Characteristics

Rating	Symbol	Value	Units
Peak pulse power dissipation at 10/1000us waveform	P <sub>PP</sub>	3500	W
Peak pulse current of at 10/1000us waveform	I <sub>PP</sub>	40	A
Peak surge voltage on 10/700us waveform	V <sub>PP</sub>	4000	V
ESD (IEC61000-4-2 air discharge) @25°C	VESD	± 15	kV
ESD (IEC61000-4-2 contact discharge) @25°C	VESD	± 8	kV
Operating junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C

Table-2 Absolute Maximum rating

### 7. Electrical Characteristics

At TA = 25°C unless otherwise noted

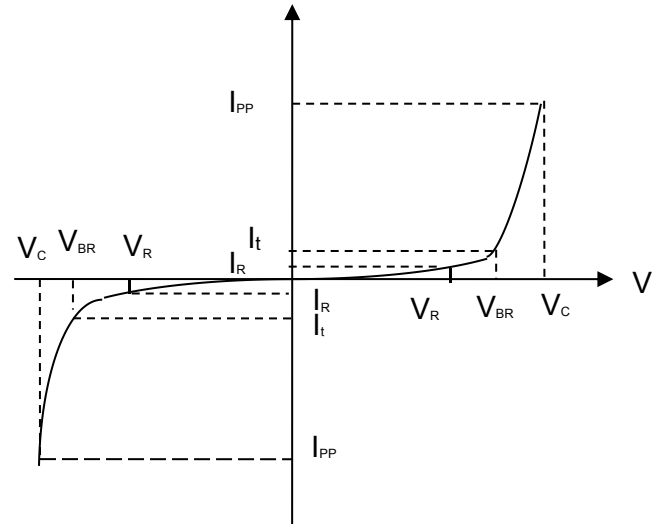
Part Number	V <sub>R</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>BR@I<sub>T</sub></sub>		I <sub>T</sub>	V <sub>C@10/700μs</sub> <sup>1</sup>	V <sub>C@10/1000μs</sub>
			min(V)	max(V)			
Bi-polar	(V)	μA	min(V)	max(V)	mA	max(V)	Max (V)
BV-SMBJ58C2H-ES	58	1	62.4	71.2	1	85	85

Table-3 Electrical Characteristics

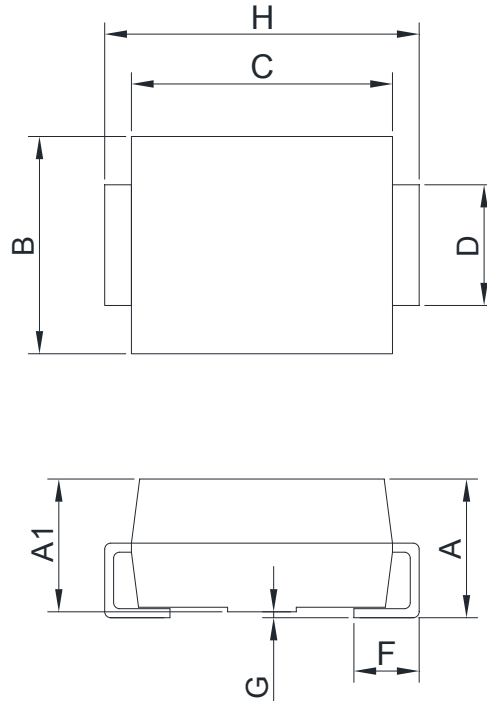
Note:

1:Ri=40Ω

Symbol	Description
$V_C$	Clamping Voltage
$I_{pp}$	Surge Waveform
$V_R$	Stand-off Voltage
$V_{BR}$	Breakdown Voltage
$I_R$	Reverse Leakage Current
$I_t$	Test Current

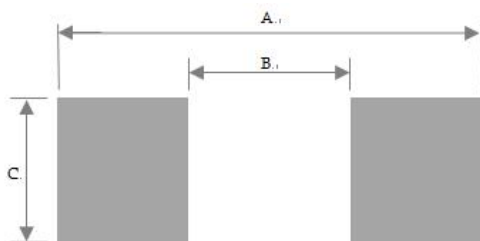


8. Dimension (SMB/DO-214AA)



REF	Millimeters		REF	Millimeters	
	MIN	MAX		MIN	MAX
A	2.15	2.45	D	1.90	2.10
A1	2.10	2.30	F	0.90	1.30
B	3.40	3.80	G	0.00	0.20
C	4.25	4.65	H	5.10	5.50

Recommended Soldering Pad



REF	mm
A	5.45
B	2.45
C	2.15

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