

## 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)  $\pm 30\text{kV}(\text{air})$   
 $\pm 30\text{kV}(\text{contact})$
- Small package: SMB
- Moisture sensitivity level: Level 1
- Max surge capability: 4KV@10/700us

## 3. Application Information

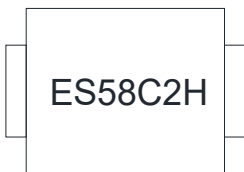

- POE
- DC-48V

## 4. Ordering Information

Part Number	Package	Marking	Material	Packing	Quantity per reel	Flammability Rating	Reel Sizes
ESSMBJ58C2H	SMB	ES58C2H	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	$P_{PP}$	3500	W
Peak pulse current of at 10/1000us waveform	$I_{PP}$	40	A
Peak surge voltage on 10/700us waveform	$V_{PP}$	4000	V
ESD (IEC61000-4-2 air discharge) @25°C	VESD	$\pm 15$	kV
ESD (IEC61000-4-2 contact discharge) @25°C	VESD	$\pm 8$	kV
Operating junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	°C

Table-2 Absolute Maximum rating

## 7. Electrical Characteristics

At  $T_A = 25^\circ\text{C}$  unless otherwise noted

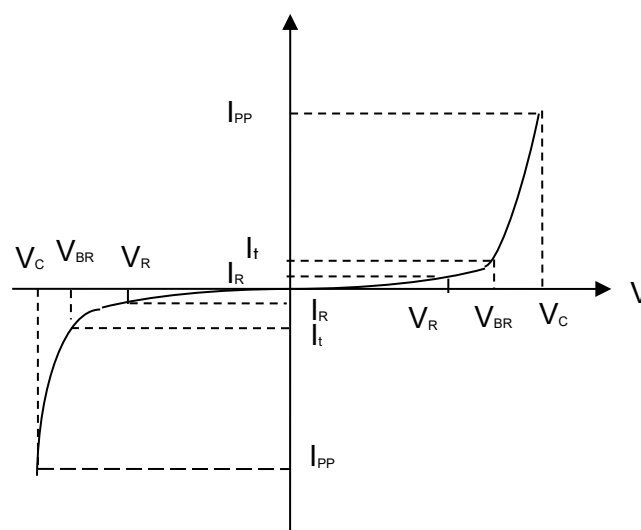
Part Number	$V_R$	$I_R@V_R$	$V_{BR}@I_T$		$I_T$	$V_C@10/700\mu\text{s}^1$	$V_C@10/1000\mu\text{s}$
Bi-polar	(V)	$\mu\text{A}$	min(V)	max(V)	mA	max(V)	Max (V)
ESSMBJ58C2H	58	1	62.4	71.2	1	85	85

Table-3 Electrical Characteristics

Note:

1:  $R_i = 40\ \Omega$

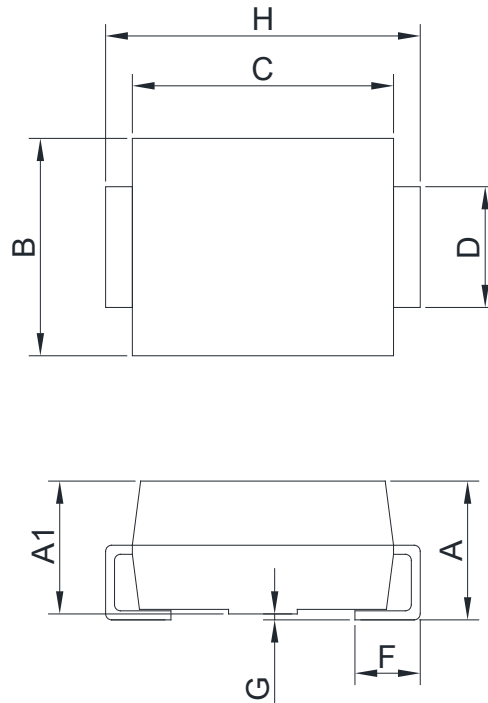
Symbol	Description
$V_C$	Clamping Voltage
$I_{pp}$	Surge Waveform
$V_R$	Stand-off Voltage
$V_{BR}$	Breakdown Voltage
$I_R$	Reverse Leakage Current
$I_t$	Test Current



## ESSMBJ58C2H

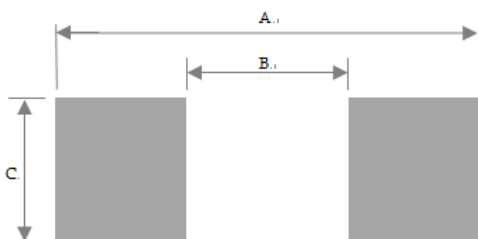
Rev-1.3

## 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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