

## / Descriptions

Surface Mount Schottky Barrier Rectifiers, Reverse Voltage 20 to 200V ,Forward Current:5.0A ,SMB package.

## / Features

Low power loss, high efficiency High forward surge current capability, Lead free in comply with EU RoHS 2011/65/EU directives, For surface mounted applications. HF product.

## / Applications

General purpose.

## / Equivalent Circuit

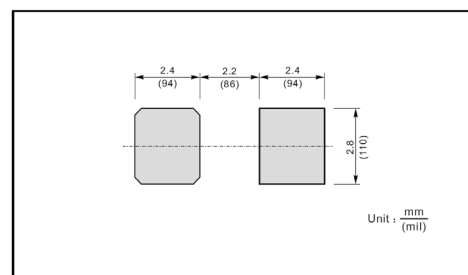


## / Pinning



| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

The recommended mounting pad size



## / Marking

See Marking Instructions.

## / Absolute Maximum Ratings(Ta=25 )

| Parameter                                                                                         | Symbol                            | Rating   |       |       |       |        |        |        |        | Unit |
|---------------------------------------------------------------------------------------------------|-----------------------------------|----------|-------|-------|-------|--------|--------|--------|--------|------|
|                                                                                                   |                                   | SS52B    | SS54B | SS56B | SS58B | SS510B | SS512B | SS515B | SS520B |      |
| Maximum Repetitive Peak Reverse Voltage                                                           | V <sub>RRM</sub>                  | 20       | 40    | 60    | 80    | 100    | 120    | 150    | 200    | V    |
| Maximum RMS voltage                                                                               | V <sub>RMS</sub>                  | 14       | 28    | 42    | 56    | 70     | 84     | 105    | 140    | V    |
| Maximum DC Blocking Voltage                                                                       | V <sub>DC</sub>                   | 20       | 40    | 60    | 80    | 100    | 120    | 150    | 200    | V    |
| Maximum Average Forward Rectified Current                                                         | I <sub>F AV</sub>                 | 5.0      |       |       |       |        |        |        |        | A    |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I <sub>FSM</sub>                  | 150      |       |       |       |        |        |        |        | A    |
| Typical Junction Capacitance <sup>(1)</sup>                                                       | C <sub>j</sub>                    | 500      |       | 300   |       |        |        |        |        | pF   |
| Typical Thermal Resistance <sup>(2)</sup>                                                         | R <sub>JA</sub>                   | 50       |       |       |       |        |        |        |        | /W   |
| Operating and Storage Temperature Range                                                           | T <sub>j</sub> , T <sub>stg</sub> | -55~+150 |       |       |       |        |        |        |        |      |

Note:

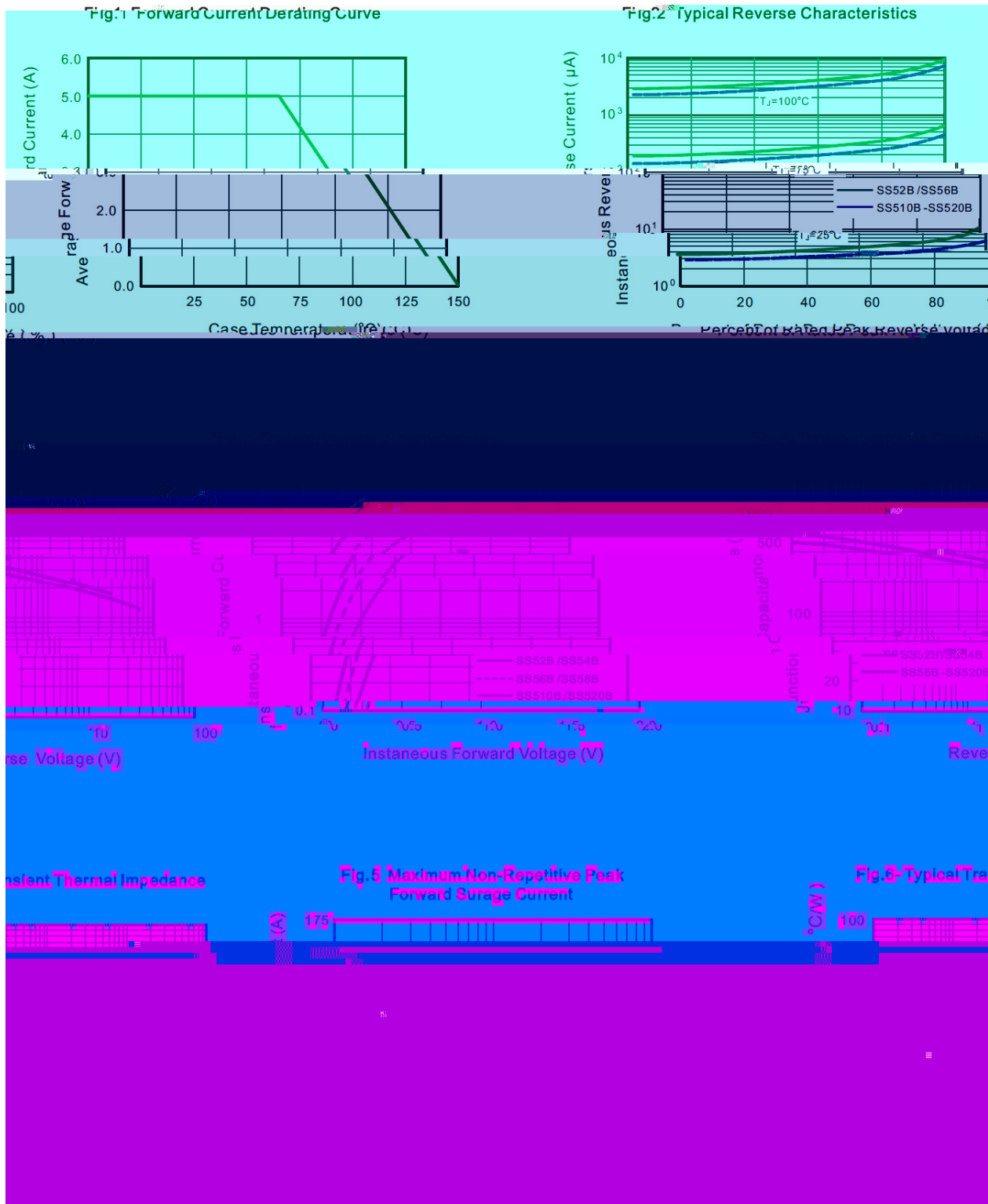
- 1 ) Measured at 1MHz and applied reverse voltage of 4 V D.C.  
 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

## / Electrical Characteristics(Ta=25 )

| Parameter                                               | Symbol         | Test Conditions      | Rating |       |       |       |        |        |        |        | Unit |
|---------------------------------------------------------|----------------|----------------------|--------|-------|-------|-------|--------|--------|--------|--------|------|
|                                                         |                |                      | SS52B  | SS54B | SS56B | SS58B | SS510B | SS512B | SS515B | SS520B |      |
| Maximum Instantaneous Forward Voltage                   | V <sub>F</sub> | I <sub>F</sub> =5.0A | 0.55   |       | 0.70  |       | 0.85   |        |        |        | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I <sub>R</sub> | T <sub>a</sub> =25   | 1.0    |       | 0.3   |       |        |        |        |        | mA   |
|                                                         |                | T <sub>a</sub> =100  | 5.0    |       | 25    |       |        |        |        |        | mA   |

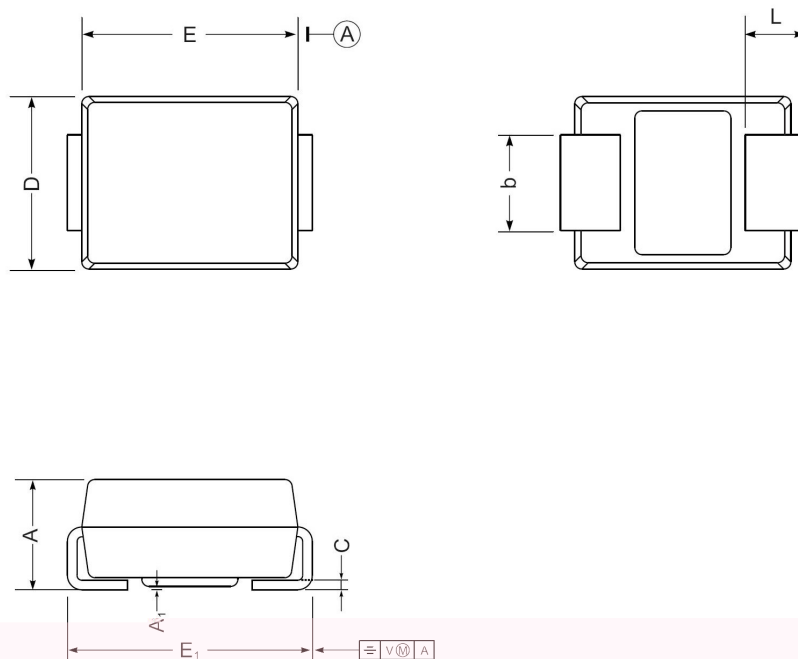


# / Electrical Characteristic Curve



## / Package Dimensions

SMB



## SMB mechanical data

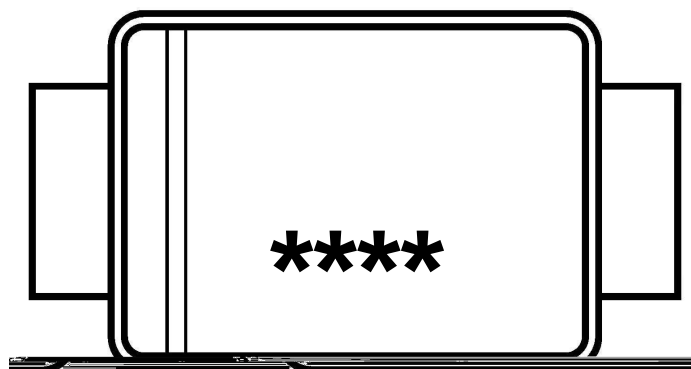
| UNIT |      | A    | E    | D    | E <sub>1</sub> | A <sub>1</sub> | L    | C     | b   |    |
|------|------|------|------|------|----------------|----------------|------|-------|-----|----|
| mm   | max. | 2.44 | 4.70 | 3.94 | 5.59           | 0.20           | 1.50 | 0.305 | 2.2 |    |
|      | min  | 2.13 | 4.06 | 3.3  | 5.08           | 0.05           | 0.8  | 0.152 | 1.9 |    |
|      | mil  | max  | 96   | 185  | 155            | 220            | 7.9  | 59    | 12  | 87 |
|      |      | min  | 84   | 160  | 130            | 200            | 2.0  | 32    | 6   | 75 |

# Marking

| g code | Type number | Marking |
|--------|-------------|---------|
| SS54B  | SS54        |         |
| SS56B  | SS56        |         |
| SS58B  | SS58        |         |
| SS510B | SS510       |         |
| SS512B | SS512       |         |
| SS515B | SS515       |         |
| SS520B | SS520       |         |



/ Marking Instructions



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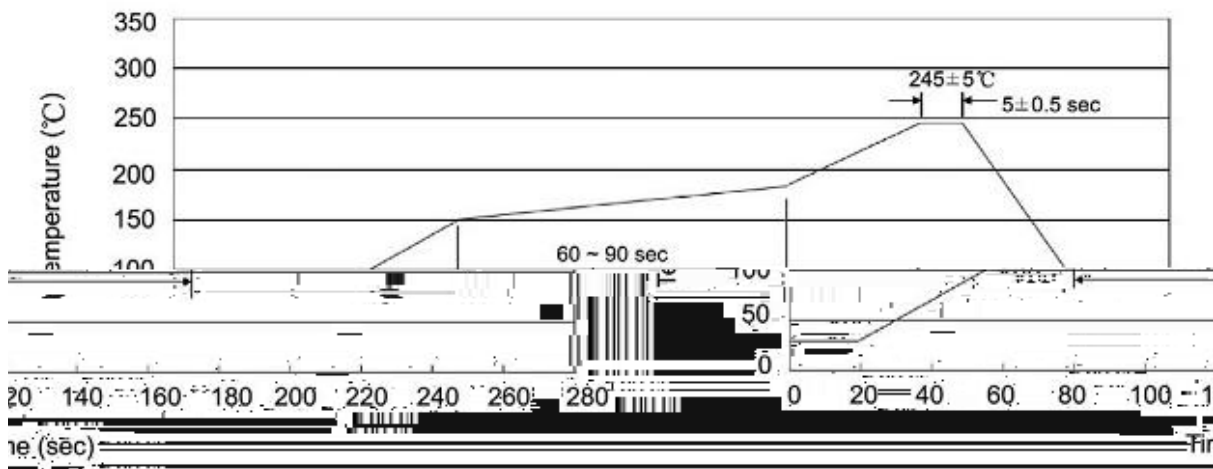
Note:

Product Type Code

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Lot No. Code The 1st \* means:YM Code The last 3 \* means:little Lot No  
Code

(     ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- |   |     |     |    |         |                                         |
|---|-----|-----|----|---------|-----------------------------------------|
| 1 | 150 | 180 | 60 | 90sec;  | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245 | 5   | 5  | 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 |     | 2   | 10 | /sec.   | 3. Cooling Speed: 2~10 /sec.            |

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp.:260 5                      Time:10 1 sec

/ Packaging SPEC.

/ REEL

| Package Type<br>封装形式 | Units 包装数量 | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |
|----------------------|------------|-----------------------------------------|
|----------------------|------------|-----------------------------------------|