

## / Descriptions

## SMAF

Surface Mount Schottky Barrier Rectifier, Reverse Voltage 20 to 200 V, Forward Current:1.0A ,SMAF thin package.

## / Features

Low power loss, high efficiency, High forward surge current capability, For use in low voltage, high frequency inverters, and polarity protection applications,For surface mounted applications.Halogen free product.

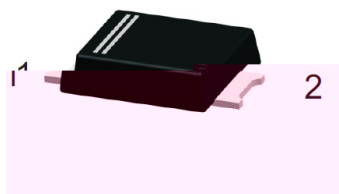
## / Applications

General purpose.

## / Equivalent Circuit

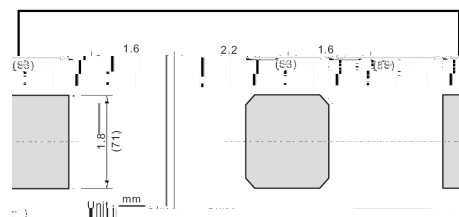


## / Pinning



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

The recommended mounting pad size



## / Marking

See Marking Instructions.

## / Absolute Maximum Ratings(Ta=25 )

| Parameter                                                                                        | Symbol            | Rating   |       |       |       |        |        |        |        | Unit |
|--------------------------------------------------------------------------------------------------|-------------------|----------|-------|-------|-------|--------|--------|--------|--------|------|
|                                                                                                  |                   | SS12F    | SS14F | SS16F | SS18F | SS110F | SS112F | SS115F | SS120F |      |
| 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> | 1.0      |       |       |       |        |        |        |        | A    |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I <sub>FSM</sub>  | 40       |       |       |       | 30     |        |        |        | A    |
| Typical Junction Capacitance <sup>1)</sup>                                                       | C <sub>i</sub>    | 110      |       | 80    |       |        |        |        |        | pF   |
| Typical Thermal Resistance <sup>2)</sup>                                                         | R <sub>θJA</sub>  | 95       |       |       |       |        |        |        |        | /W   |
| Operating Junction Temperature Range                                                             | T <sub>j</sub>    | -55~+125 |       |       |       |        |        |        |        |      |
| Storage Temperature Range                                                                        | 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 0.2 X 0.2" (5 X 5 mm) copper pad areas.

## / Electrical Characteristics(Ta=25 )

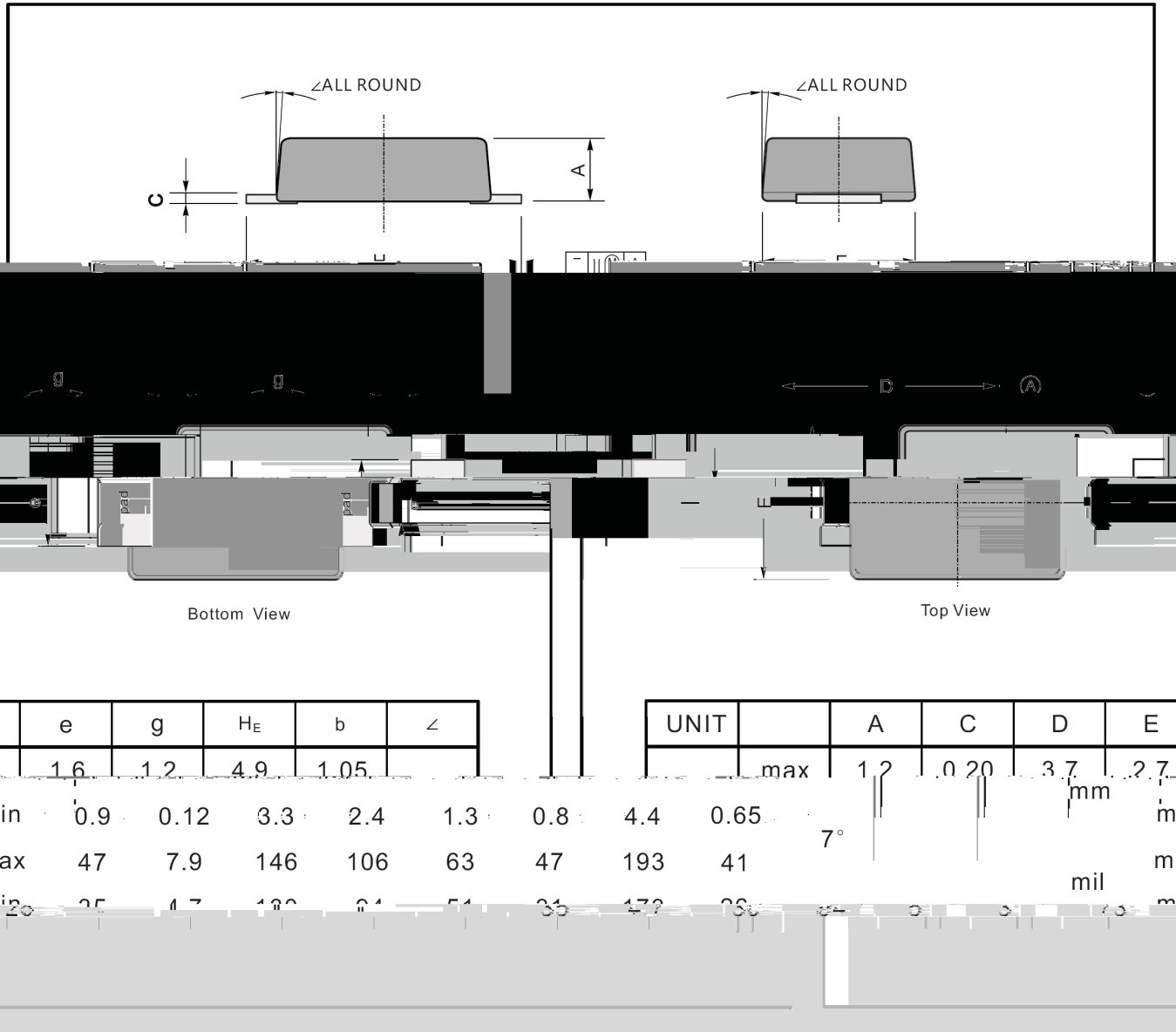
| Parameter                                              | Symbol         | Test Conditions      | Rating |       |       |       |        |        |        |        | Unit |
|--------------------------------------------------------|----------------|----------------------|--------|-------|-------|-------|--------|--------|--------|--------|------|
|                                                        |                |                      | SS12F  | SS14F | SS16F | SS18F | SS110F | SS112F | SS115F | SS120F |      |
| Max Instantaneous Forward Voltage                      | V <sub>F</sub> | I <sub>F</sub> =1.0A | 0.55   |       | 0.70  |       | 0.85   |        | 0.90   |        | V    |
| Maximum DC Reverse Current at Rated DC Reverse Voltage | I <sub>R</sub> | T <sub>a</sub> =25   | 0.3    |       |       |       | 0.2    |        | 0.1    |        | mA   |
|                                                        |                | T <sub>a</sub> =100  | 10     |       |       |       | 5.0    |        | 2.0    |        |      |



/ Electrical Characteristic Curve



/ Package Dimensions



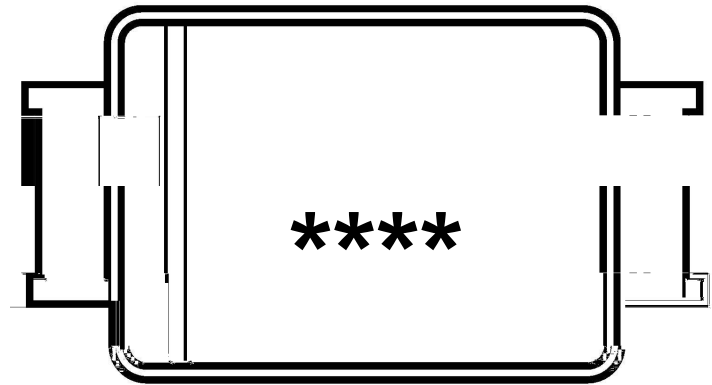
**/ Marking Instructions**

## Marking

| Type number | Marking code |
|-------------|--------------|
| SS12F       | SS12         |
| SS14F       | SS14         |
| SS16F       | SS16         |
| SS18F       | SS18         |
| SS110F      | SS110        |
| SS112F      | SS112        |
| SS115F      | SS115        |
| SS120F      | SS120        |



/ Marking Instructions



SS12

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1 \*

3 \*

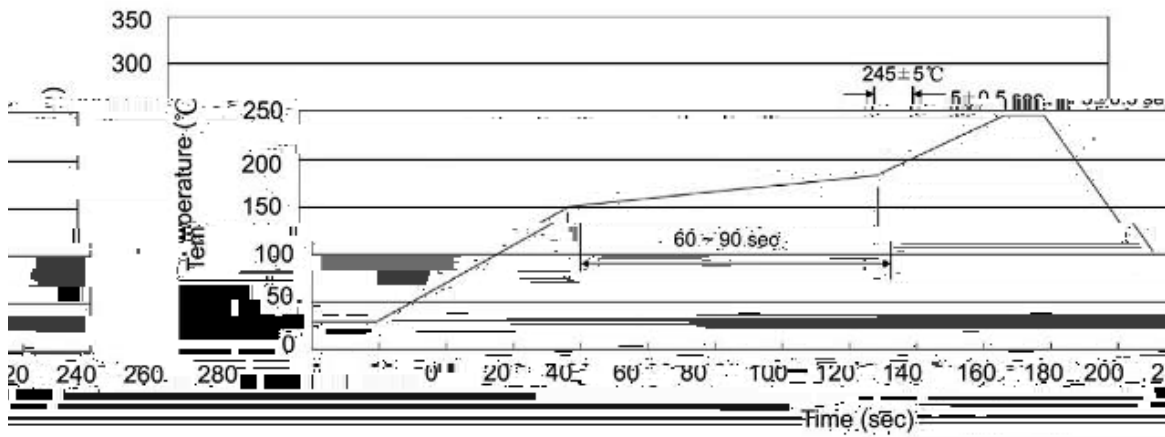
Note:

SS12 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.            |

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