

## Surface Mount Rectifiers

## US2AAHM--US2MAHM

### FEATURES

- For surface mount applications
- Low profile package
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- Built-in strain relief, ideal for automated placement
- High temperature soldering: 250°C/10 seconds on terminals
- Plastic package has underwriters laboratories flammability classification 94V-0
- This product not contains Antimony and Bromine compounds (rFR)



Lead-free



### MECHANICAL DATA

- Case: JEDEC DO-214AC, molded plastic body over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002 ounces, 0.064 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

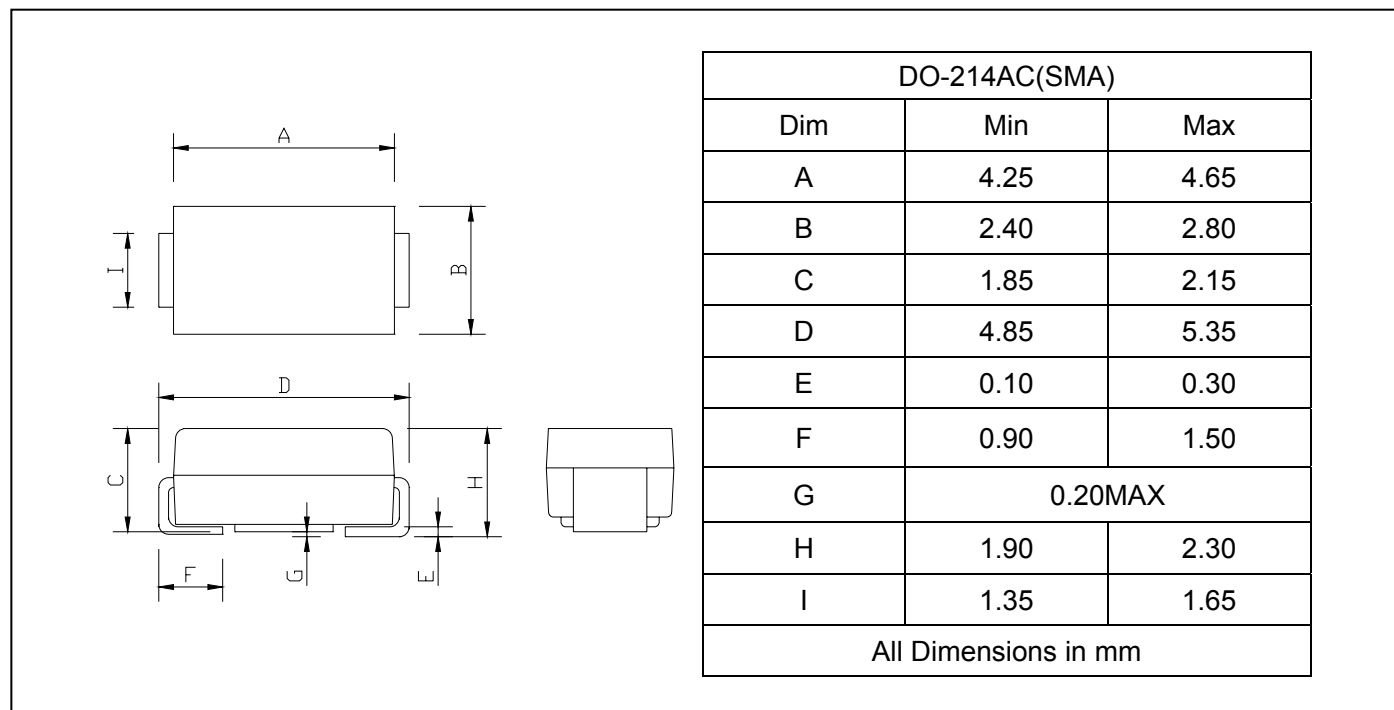
|                                                                                                       |                    | US2AA<br>HM   | US2BA<br>HM | US2DA<br>HM | US2GA<br>HM | US2JA<br>HM | US2KA<br>HM | US2MA<br>HM | UNITS |
|-------------------------------------------------------------------------------------------------------|--------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| Maximum recurrent peak reverse voltage                                                                | V <sub>RRM</sub>   | 50            | 100         | 200         | 400         | 600         | 800         | 1000        | V     |
| Maximum RMS voltage                                                                                   | V <sub>RWS</sub>   | 35            | 70          | 140         | 280         | 420         | 560         | 700         | V     |
| Maximum DC blocking voltage                                                                           | V <sub>DC</sub>    | 50            | 100         | 200         | 400         | 600         | 800         | 1000        | V     |
| Maximum average forward rectified current at T <sub>L</sub> =90℃                                      | I <sub>F(AV)</sub> | 2.0           |             |             |             |             |             |             | A     |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load (JEDEC Method)   | I <sub>FSM</sub>   | 50            |             |             |             |             |             |             | A     |
| Maximum instantaneous forward voltage at 2.0A                                                         | V <sub>F</sub>     | 1.0           |             |             |             | 1.7         |             |             | V     |
| Maximum DC reverse current @T <sub>A</sub> =25℃<br>at rated DC blocking voltage @T <sub>A</sub> =125℃ | I <sub>R</sub>     | 10.0<br>350   |             |             |             |             |             |             | μ A   |
| Maximum reverse recovery time<br>at I <sub>F</sub> =0.5A I <sub>R</sub> =1.0A I <sub>rr</sub> =0.25A  | t <sub>rr</sub>    | 50            |             |             |             | 75          |             |             | ns    |
| Typical junction capacitance at4.0V,1MHZ                                                              | C <sub>J</sub>     | 50            |             |             |             | 30          |             |             | p F   |
| Maximum thermal resistance (NOTE1)                                                                    | R <sub>θJA</sub>   | 50            |             |             |             |             |             |             | ℃/W   |
|                                                                                                       | R <sub>θJL</sub>   | 18            |             |             |             |             |             |             |       |
| Operating temperature range                                                                           | T <sub>J</sub>     | -55----- +150 |             |             |             |             |             |             | ℃     |
| Storage temperature range                                                                             | T <sub>STG</sub>   | -55----- +150 |             |             |             |             |             |             | ℃     |

NOTE: 1.P.C.B.mounted on 0.2X0.2"(5.0X5.0mm) copper pad area

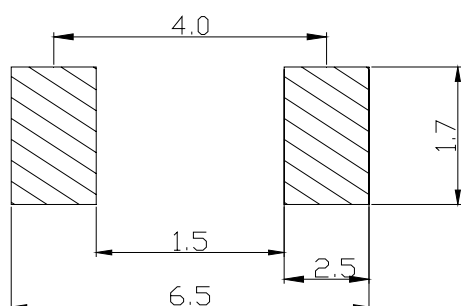
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### PACKAGE OUTLINE DIMENSIONS



### SOLDERING FOOTPRINT



Unit : mm

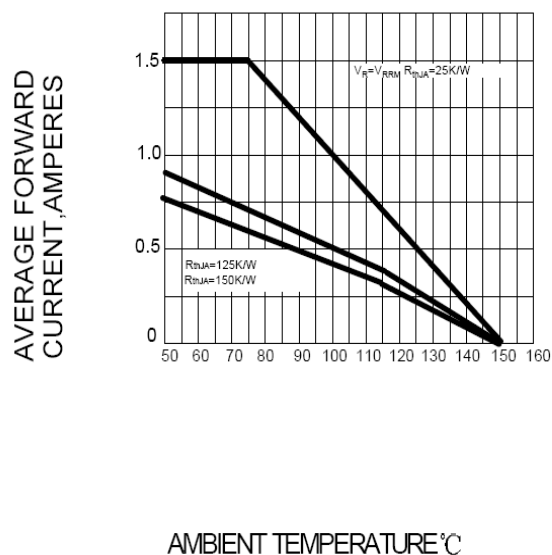
### PACKAGE INFORMATION

| Device           | Package       | Shipping       |
|------------------|---------------|----------------|
| US2AAHM--US2MAHM | DO-214AC(SMA) | 5000/Tape&Reel |

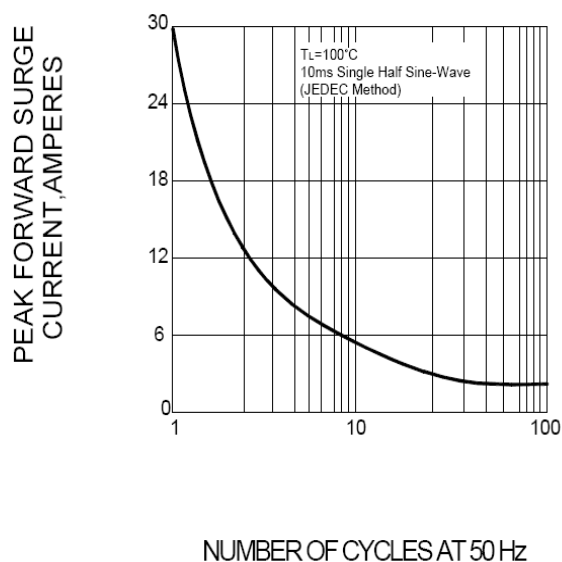
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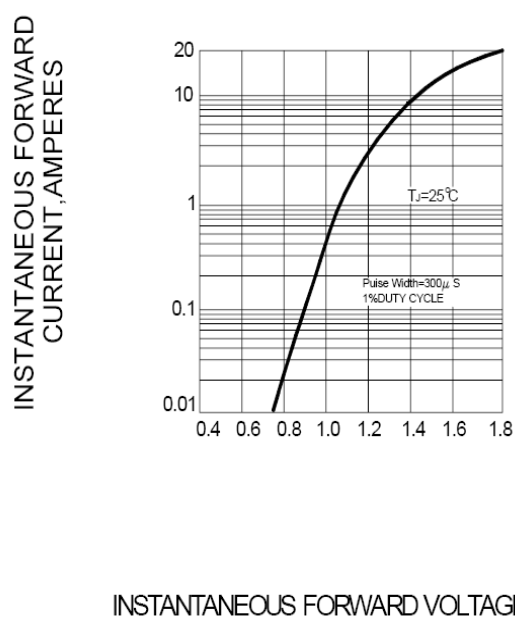
**FIG.1 -- FORWARD DERATING CURVE**



**FIG.2--PEAK FORWARD SURGE CURRENT**



**FIG.3 --TYPICAL FORWARD CHARACTERISTIC**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTICS**

