



## 2.0A SUFACE MOUNT FAST RECOVERY RECTIFIERS-50-1000V SMB PACKAGE

FFM201  
THRU  
FFM207



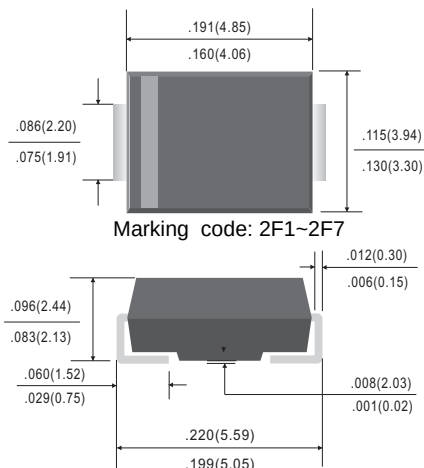
### FEATURES

- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction

### MECHANICAL DATA

- \* Case: DO-214AA/SMB Molded plastic
- \* Epoxy : Device has UL flammability classification 94V-0
- \* Mounting position: Any
- \* Weight: 0.095 grams (approximate)
- \* **Polarity:** Color band denotes cathode end
- \* Moisture Sensitivity Level 1
- \* **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"

### SMB/DO-214AA



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS                                                                                           | SYMBOL        | FFM201       | FFM202 | FFM203 | FFM204 | FFM205 | FFM206 | FFM207 | UNITS |
|---------------------------------------------------------------------------------------------------|---------------|--------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                            | VRRM          | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum RMS Voltage                                                                               | VRMS          | 35           | 70     | 140    | 280    | 420    | 560    | 700    | Volts |
| Maximum DC Blocking Voltage                                                                       | VDC           | 50           | 100    | 200    | 400    | 600    | 800    | 1000   | Volts |
| Maximum Average Forward Rectified Current                                                         | Io            | 2.0          |        |        |        |        |        |        | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM          | 50           |        |        |        |        |        |        | Amps  |
| Maximum Thermal Resistance                                                                        | (Note 2) RθJL | 30           |        |        |        |        |        |        | °C/W  |
|                                                                                                   | (Note 3) RθJA | 80           |        |        |        |        |        |        | °C/W  |
| Typical Junction Capacitance (Note 1)                                                             | Cj            | 20           |        |        |        |        |        |        | pF    |
| Operating and Storage Temperature Range                                                           | TJ, TSTG      | -65 to + 150 |        |        |        |        |        |        | °C    |

#### ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS                                                  | SYMBOL | FFM201 | FFM202 | FFM203 | FFM204 | FFM205 | FFM206 | FFM207 | UNITS |
|------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Forward Voltage at 2.0A DC                               | VF     | 1.3    |        |        |        |        |        |        | Volts |
| Maximum Full Load Reverse Current, Full cycle Average at TA=50°C | IR     | 50     |        |        |        |        |        |        | uAmps |
| Maximum DC Reverse Current at @TA = 25°C                         |        | 5.0    |        |        |        |        |        |        | uAmps |
| Rated DC Blocking Voltage @TA = 100°C                            |        | 100    |        |        |        |        |        |        | uAmps |
| Maximum Reverse Recovery Time (Note 4)                           | trr    | 150    |        |        |        | 250    | 500    |        | nSec  |

NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC

2. Thermal resistance junction to terminal 6.0mm<sup>2</sup> copper pads to each terminal.

3. Thermal resistance junction to ambient, 6.0mm<sup>2</sup> copper pads to each terminal.

4. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A



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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

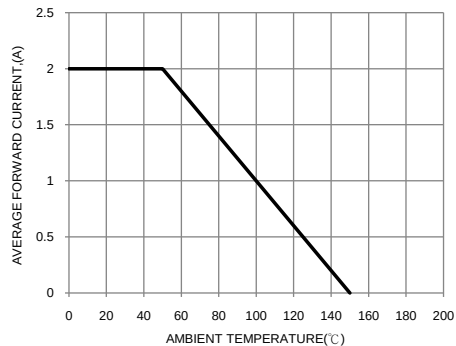


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

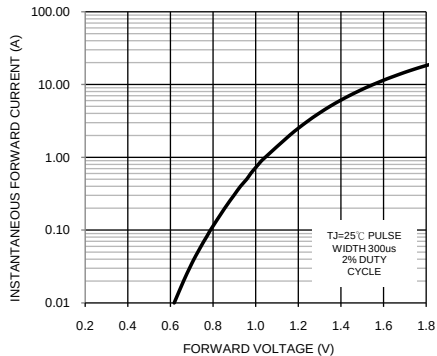


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

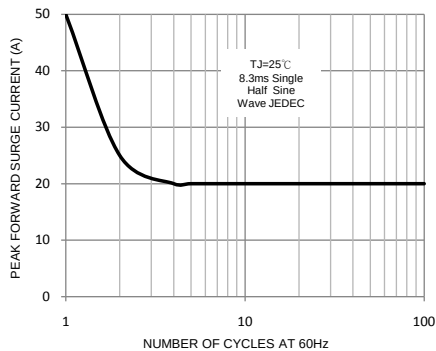


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

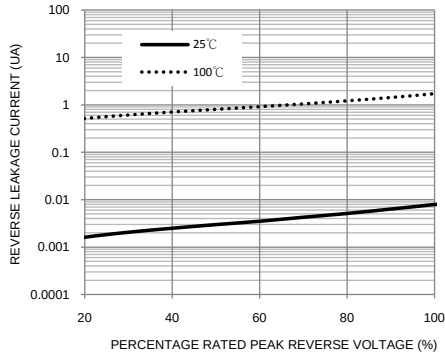


FIG. 5-TYPICAL JUNCTION CAPACITANCE

