

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIER**

**REVERSE VOLTAGE – 100 Volts
FORWARD CURRENT – 2.0 Ampere**

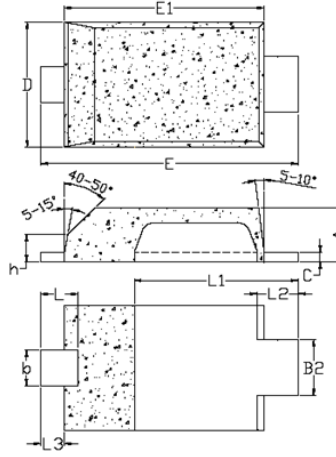
FEATURES

- Very low profile package – 0.80mm
- Super fast switching for high efficiency
- For surface mounted applications
- Very Low forward voltage drop and high current capability
- Low reverse leakage current
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Package: JEDEC DO-222AA
- Package Material: “Green” molding compound, UL flammability classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Component in accordance to RoHs 2002/95/EC

Mite Flat(DO-222AA)



| DO-222AA | | |
|----------|------|------|
| DIM. | MIN. | MAX. |
| A | 0.80 | 0.95 |
| b | 0.40 | 0.65 |
| b2 | 0.70 | 1.00 |
| C | 0.10 | 0.25 |
| D | 1.75 | 2.05 |
| E | 3.60 | 3.90 |
| E1 | 2.80 | 3.10 |
| h | 0.35 | 0.50 |
| L | 0.50 | 0.80 |
| L1 | 2.10 | 2.60 |
| L2 | 0.45 | 0.75 |
| L3 | 0.20 | 0.50 |

All dimension in millimeter

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER | SYMBOL | FB2100M | UNIT |
|--|-----------------|-------------|--------------------|
| Device marking code | Note | B2B | --- |
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 100 | V |
| Maximum RMS Voltage | V_{RMS} | 70 | V |
| Maximum DC Blocking Voltage | V_{DC} | 70 | V |
| Average Rectified Output Current @ $T_L=140^\circ\text{C}$, (Fig.1) | $I_{(AV)}$ | 2.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave | I_{FSM} | 50 | A |
| Forward Voltage (Note 4) $I_F=2.0\text{A}$ | V_F | 0.8 0.66 | V |
| Leakage Current (Note 4) $V_{DC}=\text{Rated}$ | I_R | 1 500 | μA |
| Typical junction capacitance (Note 5) | C_J | 60 | pF |
| Operating junction temperature | T_J | -55 to +175 | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |
| THERMAL CHARACTERISTIC | SYMBOL | Typical | UNIT |
| Typical thermal resistance_Junction to Case (Note 6) | $R_{\Theta JC}$ | 32 | $^\circ\text{C/W}$ |
| Typical thermal resistance_Junction to Ambient (Note 6) | $R_{\Theta JA}$ | 110 | $^\circ\text{C/W}$ |
| Typical thermal resistance_Junction to Lead (Note 6) | $R_{\Theta JL}$ | 27 | $^\circ\text{C/W}$ |

Notes :

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. 300us Pulse width, 2% Duty cycle.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft²_7x5 mm copper pad.

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RATING AND CHARACTERISTIC CURVES

FB2100M

FIG.1- FORWARD CURRENT DERATING CURVE

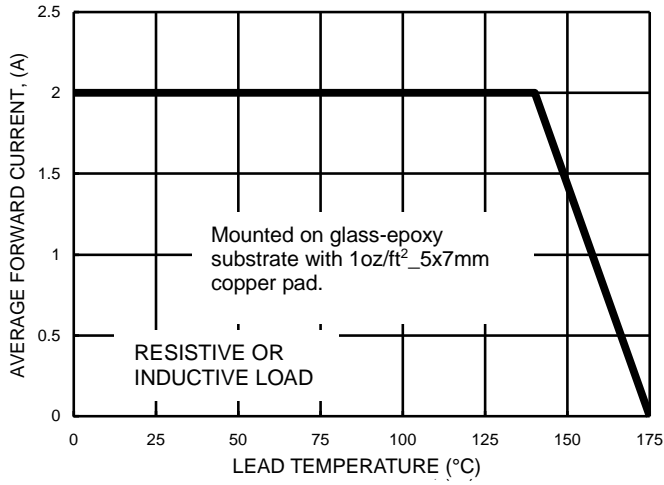


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

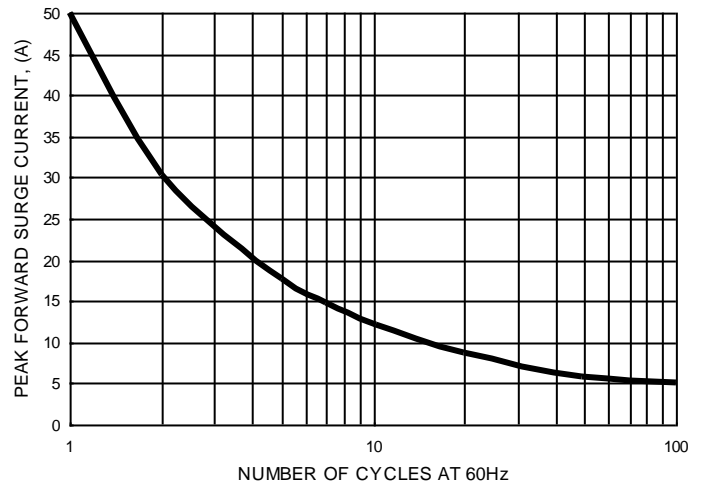


FIG.3- TYPICAL FORWARD CHARACTERISTICS

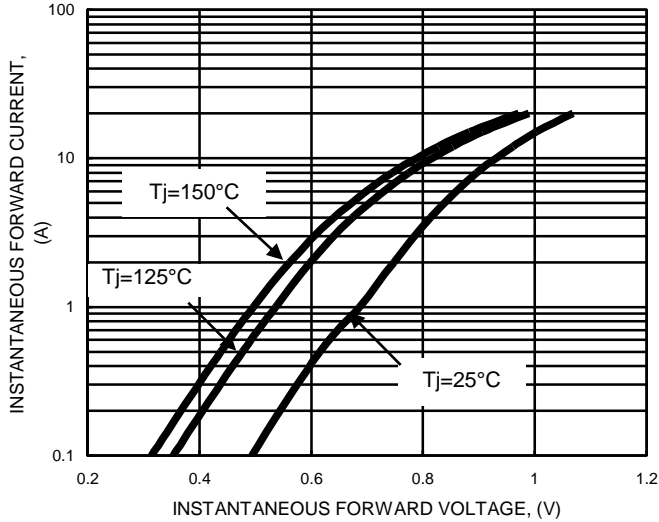


FIG.4- TYPICAL JUNCTION CAPACITANCE

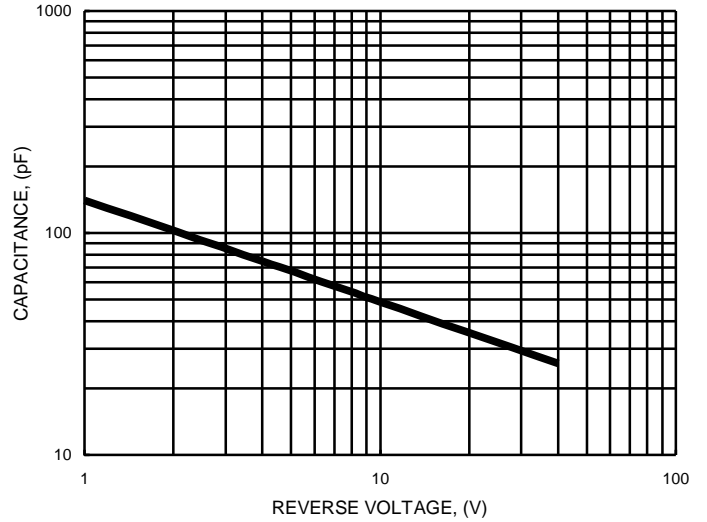
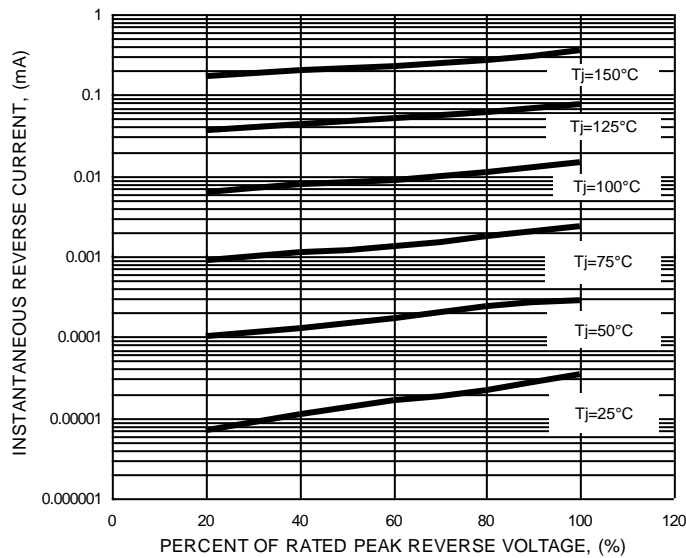


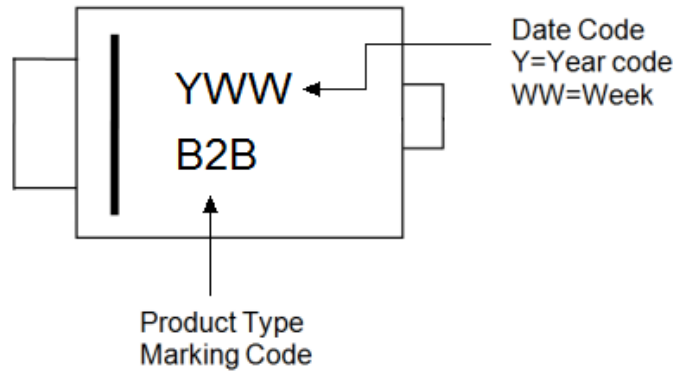
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

| Part Number | Package | Packing | |
|-------------|----------|---------|-------------|
| | | Qty. | Carrier |
| FB2100M | DO-222AA | 12000 | Tape & Reel |

Marking Information :



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