



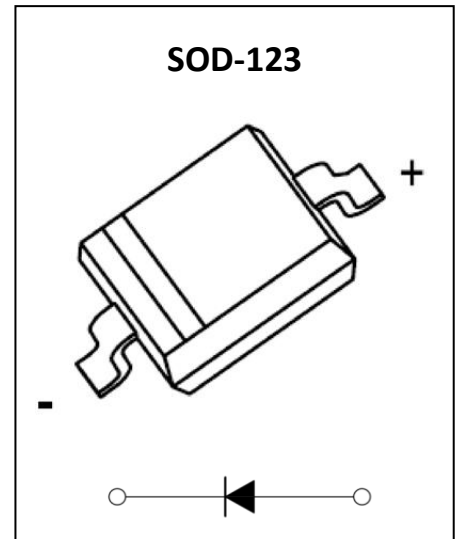
**GP5818W Schottky Barrier Diode**

**Feature**

- Small power mold type
- Low VF
- Low IR
- High reliability

**Application**

- High frequency inverters
- Free wheeling
- Polarity protection applications



**MARKING:**



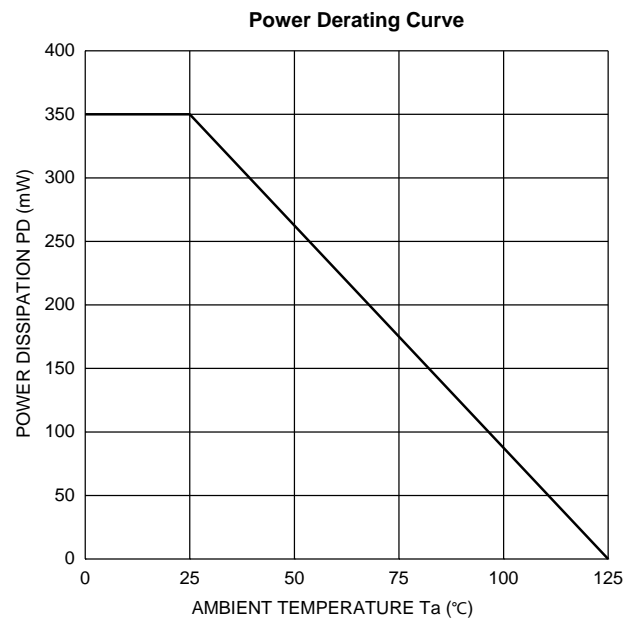
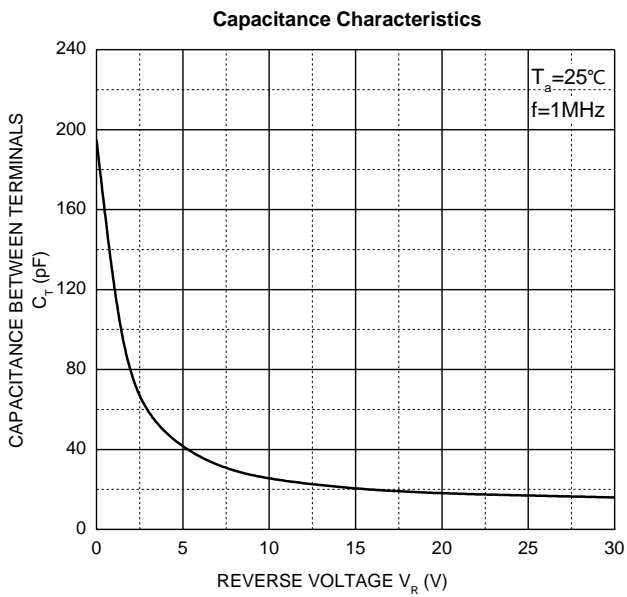
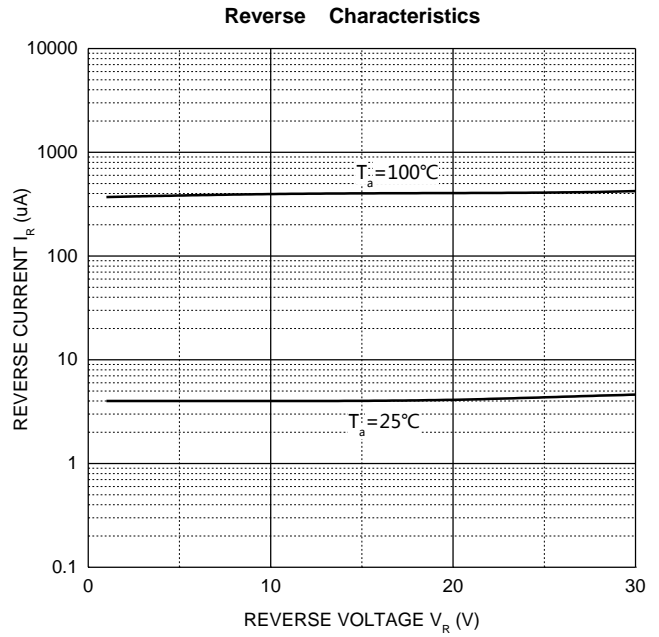
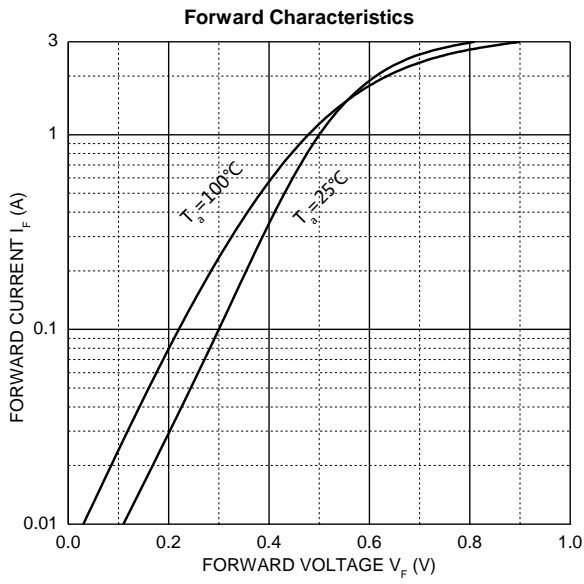
**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

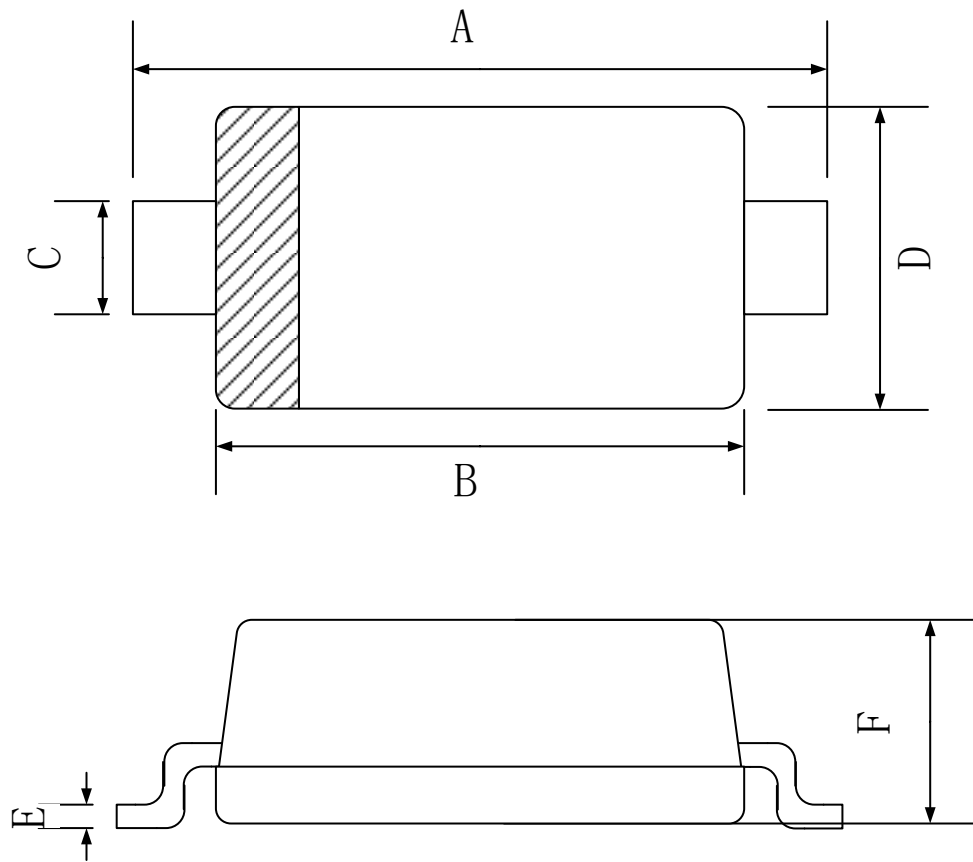
| Parameter   | Symbol           | Value      | Unit |
|---|------------------|------------|------|
| DC reverse voltage                                  | V <sub>R</sub>   | 30         | V    |
| Mean rectifying current                             | I <sub>o</sub>   | 1          | A    |
| Non-repetitive Peak Forward Surge Current @ t=8.3ms | I <sub>FSM</sub> | 15         | A    |
| Power Dissipation                                   | P <sub>D</sub>   | 0.35       | W    |
| Thermal Resistance from Junction to Ambient         | R <sub>θJA</sub> | 285        | °C/W |
| Junction Temperature                                | T <sub>J</sub>   | 125        | °C   |
| Storage Temperature                                 | T <sub>STG</sub> | -55 ~ +150 | °C   |

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise noted)**

| Parameter         | Symbol          | Test Condition             | Min | Type | Max  | Unit |
|-------------------|-----------------|----------------------------|-----|------|------|------|
| Reverse voltage   | V <sub>BR</sub> | I <sub>R</sub> =250μA      | 30  | 40   |      | V    |
| Forward voltage   | V <sub>F</sub>  | I <sub>F</sub> =0.5A       | 0   | 0.40 | 0.45 | V    |
|                   |                 | I <sub>F</sub> =1.0A       | 0   | 0.48 | 0.53 | V    |
|                   |                 | I <sub>F</sub> =3.0A       | 0   | 0.73 | 0.85 | V    |
| Reverse current   | I <sub>R</sub>  | V <sub>R</sub> =30V        |     | 3    | 50   | μA   |
| Diode capacitance | C <sub>D</sub>  | V <sub>R</sub> =4V, f=1MHz |     | 50   |      | pF   |

**Typical Characteristics**



**SOD-123 Package Outline Dimensions**


| Symbol | Dimensions In Millimeters |       |      |
|--------|---------------------------|-------|------|
|        | Min.                      | Typ.  | Max. |
| A      | 3.45                      | 3.65  | 3.85 |
| B      | 2.55                      | 2.65  | 2.75 |
| C      | 0.45                      | 0.55  | 0.65 |
| D      | 1.50                      | 1.60  | 1.70 |
| E      | 0.09                      | 0.105 | 0.12 |
| F      | 0.95                      | 1.15  | 1.35 |