

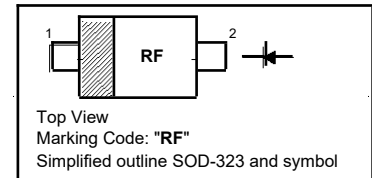
MBR0530WS SURFACE MOUNT SCHOTTKY POWER RECTIFIER

FEATURES

- * For surface mounted applications
- * Low forward voltage drop ($V_F=0.37V$ Typ. at 0.1A)
- * Guard ring for transient and ESD protection

PINNING

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



Absolute Maximum Ratings ($T_a = 25^{\circ}C$)

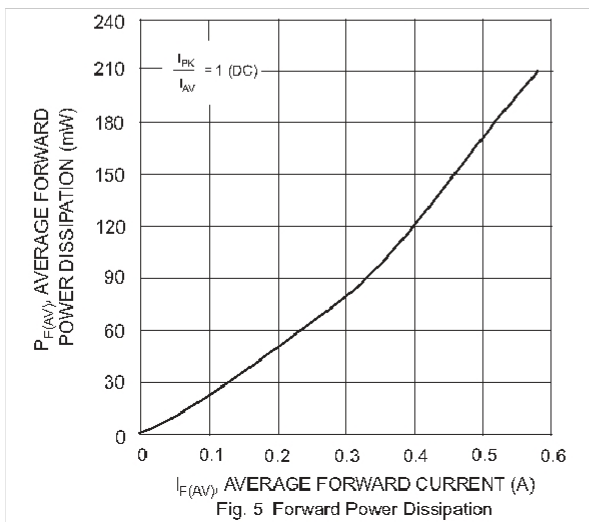
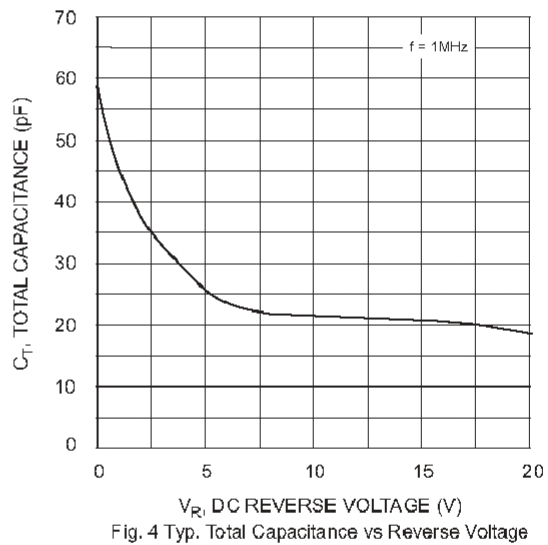
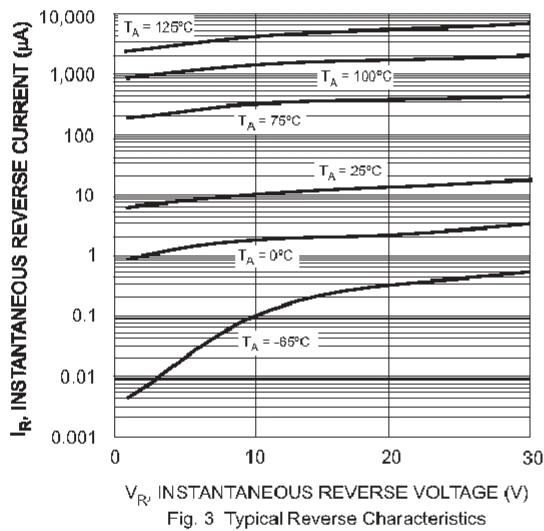
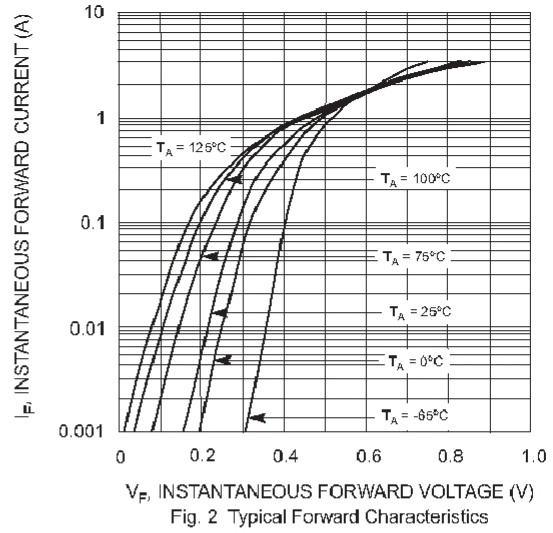
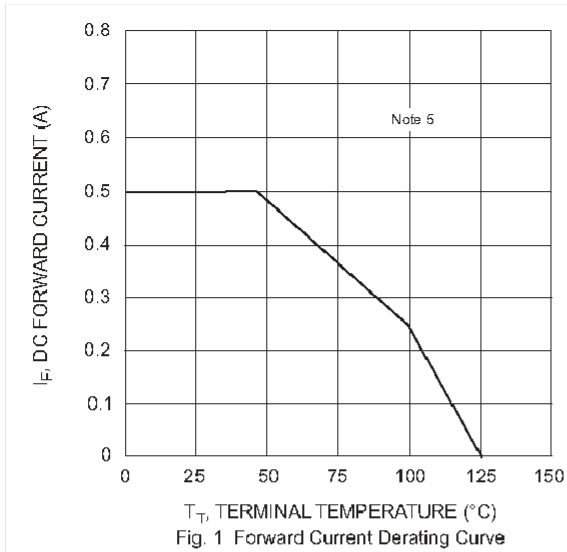
| Parameter | Symbol | Value | Unit |
|---|-----------------|---------------|---------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 30 | V |
| Maximum DC Blocking Voltage | V_R | 30 | V |
| Average Forward Rectified Current | $I_{F(AV)}$ | 0.5 | A |
| Peak Forward Surge Current (8.3 ms Single Half Sine-wave) | I_{FSM} | 2 | A |
| Power Dissipation ¹⁾ | P_d | 235 | mW |
| Thermal Resistance Junction to Ambient ¹⁾ | $R_{\theta JA}$ | 426 | $^{\circ}C/W$ |
| Operating Junction Temperature | T_J | - 65 to + 125 | $^{\circ}C$ |
| Storage Temperature Range | T_{stg} | - 65 to + 150 | $^{\circ}C$ |

¹⁾ 1 inch square pad size (1 X 0.5 inch for each lead) on FR4 board

Electrical Characteristics at $T_a = 25^{\circ}C$

| Parameter | Symbol | Min. | Max. | Unit |
|--|-------------|-------------|------------------|---------|
| Reverse Breakdown Voltage at $I_R = 500 \mu A$ | $V_{(BR)R}$ | 30 | - | V |
| Forward Voltage at $I_F = 100 mA$ at $I_F = 500 mA$ | V_F | - - | 0.375 0.5 | V |
| Reverse Current at $V_R = 15 V$ at $V_R = 20 V$ at $V_R = 30 V$ | I_R | - - - | 80 100 130 | μA |

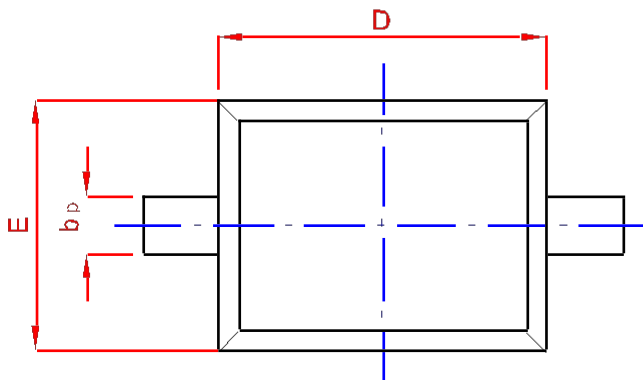
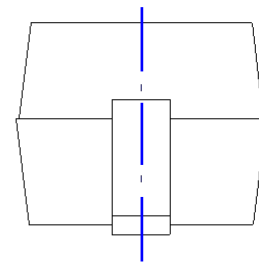
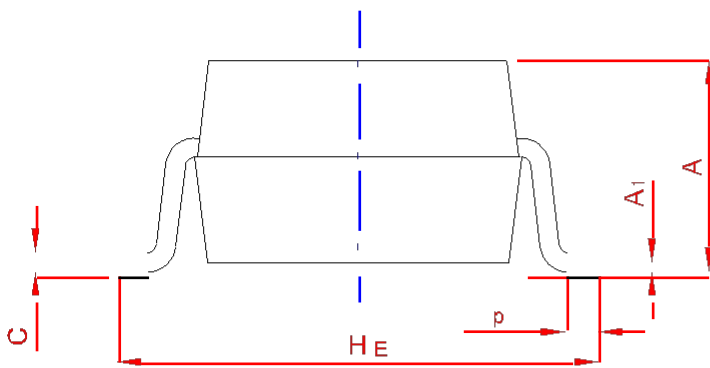
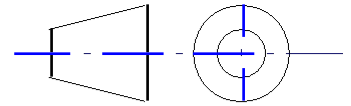
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | bp | C | D | E | HE | A1 | Lp |
|------|------|------|------|------|------|------|------|------|
| mm | 1.20 | 0.40 | 0.15 | 1.80 | 1.35 | 2.80 | 0.10 | 0.50 |
| | 0.90 | 0.25 | 0.10 | 1.60 | 1.15 | 2.30 | 0.01 | 0.20 |