

BAT165WS SCHOTTKY BARRIER DIODE

Features

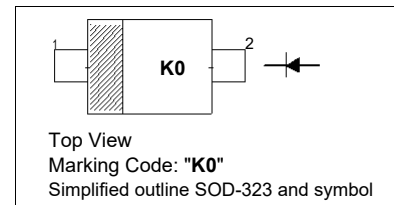
- Medium current schottky rectifier diode

Applications

- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications

PINNING

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



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

| Parameter | Symbol | Value | Unit |
|---|-----------|---------------|--------------------|
| Reverse Voltage | V_R | 40 | V |
| Average forward current | I_{FAV} | 500 | mA |
| Forward Current | I_F | 750 | mA |
| Surge Forward Current ($t \leq 10$ ms) | I_{FSM} | 2.5 | A |
| Total Power Dissipation | P_{tot} | 600 | mW |
| Junction Temperature | T_J | 150 | $^{\circ}\text{C}$ |
| Storage Temperature Range | T_{stg} | - 65 to + 150 | $^{\circ}\text{C}$ |

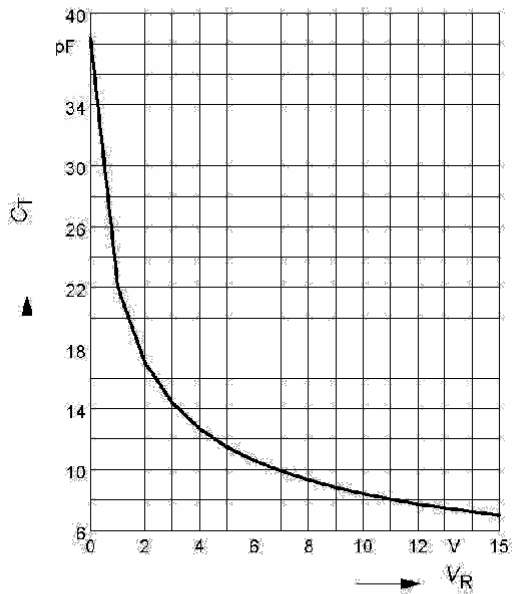
Characteristics at $T_a = 25^{\circ}\text{C}$

| Parameter | Symbol | Max. | Unit |
|---|--------|------------|---------------|
| Forward Voltage at $I_F = 10$ mA at $I_F = 250$ mA | V_F | 0.4 0.7 | V |
| Reverse Current at $V_R = 30$ V at $V_R = 30$ V, $T_a = 65^{\circ}\text{C}$ | I_R | 50 900 | μA |
| Diode Capacitance at $V_R = 10$ V, $f = 1$ MHz | C_T | 12 | pF |

Typical Characteristics

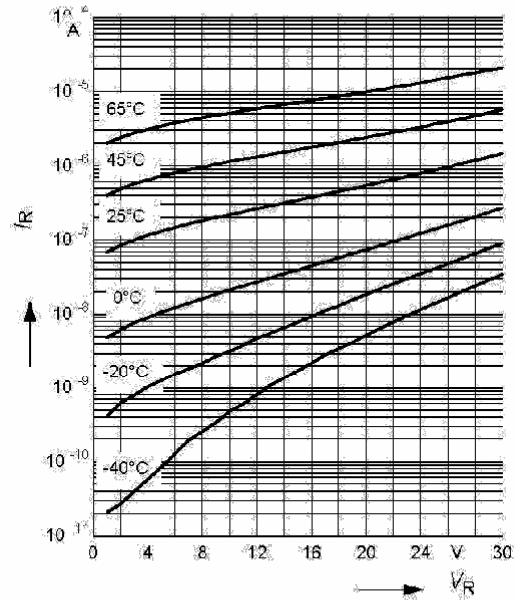
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



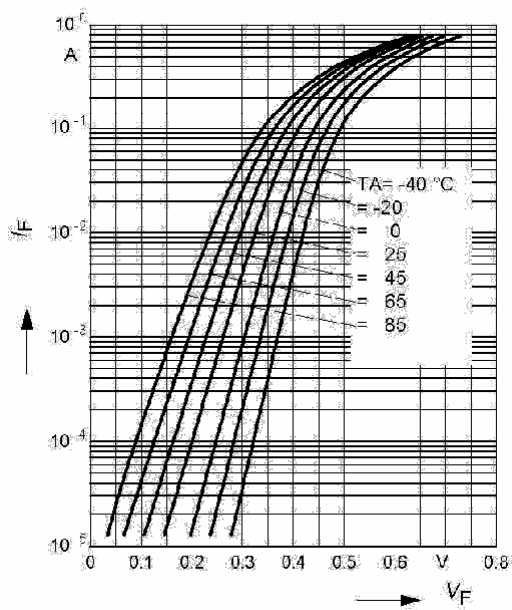
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$

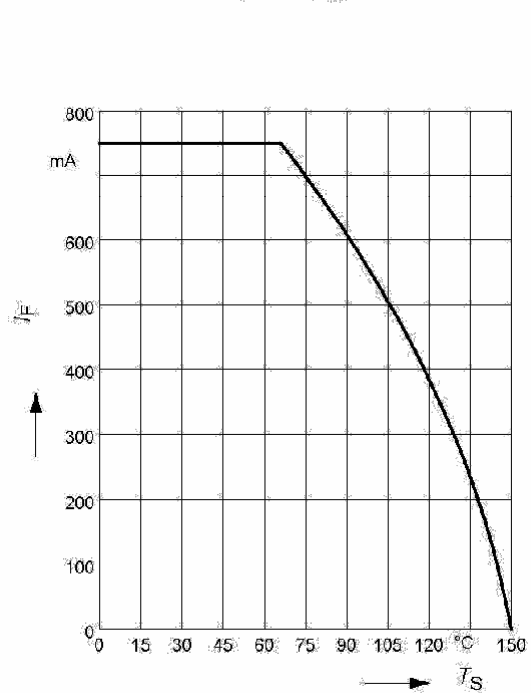


Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$



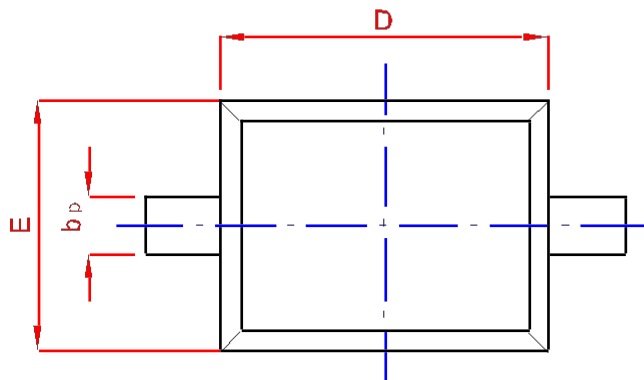
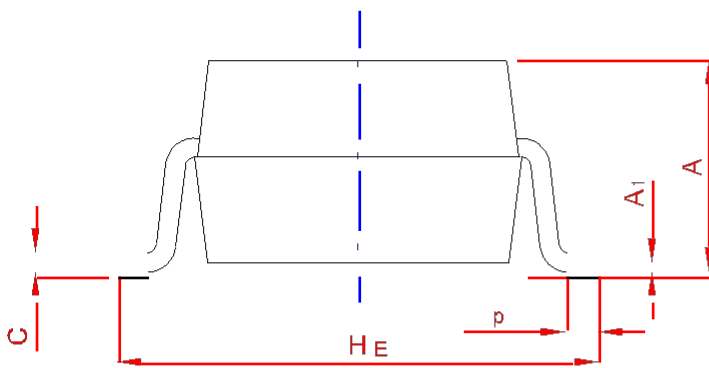
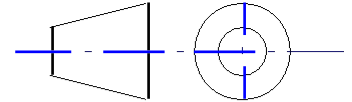
Forward current $I_F = f(T_S)$



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



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