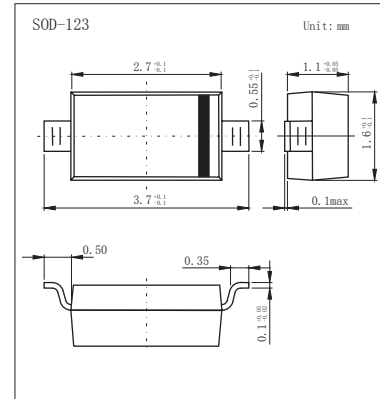


Schottky Diodes

BAT46W (KAT46W)



■ Features

- High Breakdown Voltage
- Low Turn-on Voltage
- Guard Ring Construction for Transient Protection

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

| Parameter | Symbol | Rating | Unit |
|--|-----------------|------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 100 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| Forward Current | I_F | 150 | mA |
| Peak Forward Surge Current @ $t_p < 1.0\text{s}$, Duty Cycle < 50% (Note.1) | I_{FM} | 350 | |
| Forward Surge Forward Current @ $t_p=10\text{ms}$ (Note.1) | I_{FSM} | 750 | |
| Power Dissipation | P_d | 200 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 420 | $^\circ\text{C/W}$ |
| | | 370 | |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature range | T_{stg} | -55 to 150 | |

Note.1: Part mounted on FR-4 board with recommended pad layout

Note.2: Part mounted on Polyimide board with recommended pad layout

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---------------------------------|----------|---|-----|-----|------|---------------|
| Reverse breakdown voltage | V_R | $I_R = 100\ \mu\text{A}$ | 100 | | | V |
| Forward voltage | V_F | $I_F = 0.1\ \text{mA}$ | | | 0.25 | |
| | | $I_F = 10\ \text{mA}$ | | | 0.45 | |
| | | $I_F = 250\ \text{mA}$ | | | 1 | |
| Reverse voltage leakage current | I_{R1} | $V_R = 1.5\ \text{V}$ | | | 0.3 | μA |
| | I_{R2} | $V_R = 10\ \text{V}$ | | | 0.5 | |
| | I_{R3} | $V_R = 50\ \text{V}$ | | | 1 | |
| | I_{R4} | $V_R = 75\ \text{V}$ | | | 2 | |
| Total capacitance | C_T | $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$ | | 20 | | pF |
| | | $V_R = 1\ \text{V}$, $f = 1\ \text{MHz}$ | | 12 | | |

■ Marking

| | |
|---------|------|
| Marking | S110 |
|---------|------|

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■ Typical Characteristics

