



BAT74

Preliminary

DIODE

SCHOTTKY BARRIER DOUBLE DIODE

DESCRIPTION

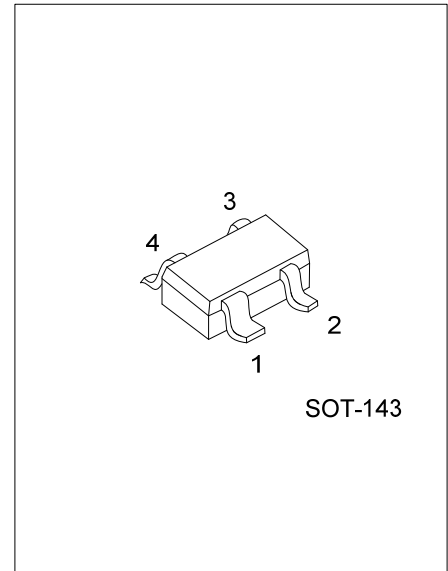
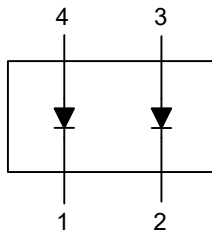
The UTC **BAT74** is a Planar Schottky barrier double diode with an integrated guard ring for stress protection.

Two electrically isolated Schottky barrier diodes, encapsulated in a small SOT-143 Surface-Mounted Device (SMD) plastic package.

FEATURES

- * Low forward voltage
- * Small SMD plastic package

SYMBOL



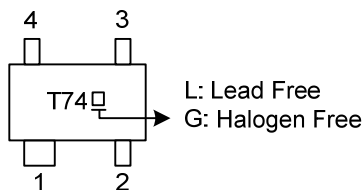
ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | | Packing |
|-----------------|--------------|---------|----------------|----|----|----|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | 4 | |
| BAT74L-AD4-R | BAT74G-AD4-R | SOT-143 | K1 | K2 | A2 | A1 | Tape Reel |

Note: Pin Assignment: K: Cathode A: Anode

| | |
|---|--|
| <p>BAT74G-AD4-R</p> <ul style="list-style-type: none">(1) Packing Type(2) Package Type(3) Green Package | <p>(1) R: Tape Reel</p> <p>(2) AD4: SOT-143</p> <p>(3) G: Halogen Free and Lead Free</p> |
|---|--|

MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNITS |
|---|----------------------------------|-----------------|--------------------|
| PER DIODE | | | |
| Reverse Voltage | V_R | 30 | V |
| Forward Continuous Current | I_F | 200 | mA |
| Non-repetitive Peak Forward Surge Current | $t_P < 10\text{ms}$ I_{FSM} | 600 | mA |
| Power Dissipation | P_D | 230 | mW |
| Junction Temperature | T_J | $-55 \sim +125$ | $^{\circ}\text{C}$ |
| Storage Temperature | T_{STG} | $-55 \sim +150$ | $^{\circ}\text{C}$ |
| DOUBLE DIODE OPERATION | | | |
| Reverse Voltage | V_R | 30 | V |
| | | 60 (Note 2) | V |
| Forward Current | I_F | 110 (Note 3) | mA |

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. Series connection.

3. If both diodes are in forward operation at the same moment, total device current is max. 110 mA. If one diode is in reverse operation and the other is in forward operation at the same moment, total device current is max. 200 mA.

■ THERMAL DATA

| CHARACTERISTIC | SYMBOL | RATINGS | UNIT |
|---------------------|---------------|---------|-----------------------------|
| Junction to Ambient | θ_{JA} | 500 | $^{\circ}\text{C}/\text{W}$ |

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------------------|--------|----------------------|-----|-----|-----|---------------|
| PER DIODE | | | | | | |
| Breakdown Voltage | V_R | $I_R=100\mu\text{A}$ | 30 | | | V |
| Forward Voltage | V_F | $I_F=0.1\text{mA}$ | | | 240 | mV |
| | | $I_F=1\text{mA}$ | | | 320 | mV |
| | | $I_F=10\text{mA}$ | | | 400 | mV |
| | | $I_F=30\text{mA}$ | | | 500 | mV |
| | | $I_F=100\text{mA}$ | | | 800 | mV |
| Reverse Current (Note 2) | I_R | $V_R=25\text{V}$ | | | 2 | μA |

Notes: Pulse test: $t_P = 300\mu\text{s}$; $\delta = 0.02$.

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