



BAV70W

Preliminary

DIODE

DUAL SURFACE MOUNT SWITCHING DIODE

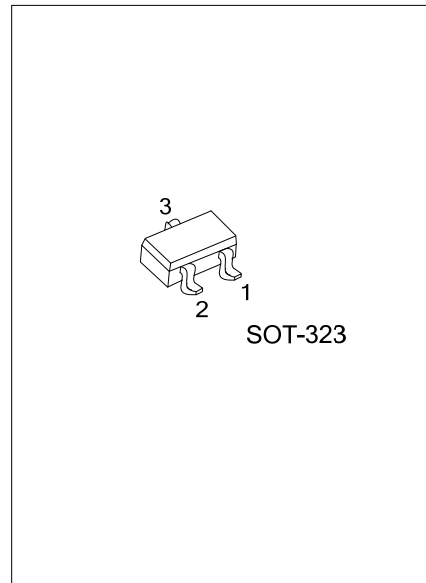
DESCRIPTION

The UTC **BAV70W** is a dual surface mount switching diode providing the designers high switching speed, high conductance and high reliability.

The UTC **BAV70W** is suitable for common switching applications.

FEATURES

- * High Switching Speed
- * High Conductance
- * High Reliability
- * Green Product



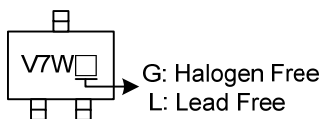
ORDERING INFORMATION

| Ordering Number | | Package | Pin Assignment | | | Packing |
|-----------------|---------------|---------|----------------|----|------|-----------|
| Lead Free | Halogen Free | | 1 | 2 | 3 | |
| BAV70WL-AL3-R | BAV70WG-AL3-R | SOT-323 | A1 | A2 | K1K2 | Tape Reel |

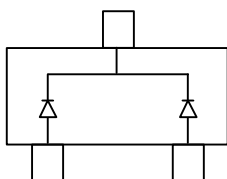
Note: Pin Assignment: A: Anode K: Cathode

| | |
|---|--|
| <p>BAV70WL-AL3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p> | <p>(1) R: Tape Reel (2) AL3 : SOT-323 (3) Halogen Free, L: Lead Free</p> |
|---|--|

MARKING



■ PIN CONFIGURATION



■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|---------------------|----------|------|
| Non-Repetitive Reverse Voltage | V _{RM} | 100 | V |
| Peak Repetitive Reverse Voltage | V _{RRM} | 75 | V |
| Working Peak Reverse Voltage | V _{RWM} | 75 | V |
| DC Blocking Voltage | V _R | 75 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 53 | V |
| Forward Continuous Current | I _{FM} | 300 | mA |
| Average Rectified Output Current | I _O | 150 | mA |
| Non-Repetitive Peak Forward Surge Current | @ t = 1.0μs | 2.0 | A |
| | @ t = 1.0s | 1.0 | |
| Power Dissipation | P _D | 200 | mW |
| Operating Temperature | T _J | -65~+150 | °C |
| Storage Temperature | T _{STG} | -65~+150 | °C |

Note: 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.

■ THERMAL DATA

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|-----------------|---------|------|
| Thermal Resistance Junction to Ambient Air | θ _{JA} | 625 | °C/W |

■ ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified.)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|------------------------------------|--------------------|---|-----|-----|-------|------|
| Reverse Breakdown Voltage (Note 1) | V _{(BR)R} | I _R = 100μA | 75 | | | V |
| Forward Voltage | V _F | I _F = 1.0mA | | | 0.715 | V |
| | | I _F = 10mA | | | 0.855 | |
| | | I _F = 50mA | | | 1.0 | |
| | | I _F = 150mA | | | 1.25 | |
| Reverse Current (Note 1) | I _R | V _R = 75V | | | 2.5 | μA |
| | | V _R = 75V, T _J = 150°C | | | 50 | |
| | | V _R = 25V, T _J = 150°C | | | 30 | nA |
| | | V _R = 20V | | | 25 | |
| Total Capacitance | C _T | V _R = 0, f = 1.0MHz | | | 2.0 | pF |
| Reverse Recovery Time | t _{rr} | I _F = I _R = 10mA, I _{rr} = 0.1 × I _R , R _L = 100Ω | | | 4.0 | ns |

Notes: 1. Short duration test pulse used to minimize self-heating effect.

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