

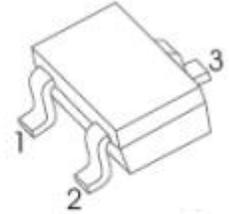
## BAV70W SWITCHING DIODE

### Features:

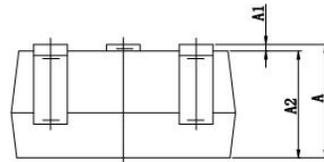
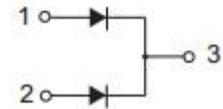
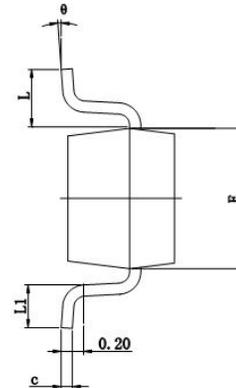
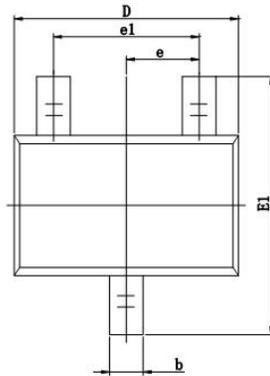
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

### Mechanical Data:

- Case: SOT-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Marking: KJA
- Weight: 0.0052grams(approx)



### Mechanical Dimensions: In mm / Inches



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.100 | 0.035                | 0.043 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.000 | 0.035                | 0.039 |
| b      | 0.200                     | 0.400 | 0.008                | 0.016 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.000                     | 2.200 | 0.079                | 0.087 |
| E      | 1.150                     | 1.350 | 0.045                | 0.053 |
| E1     | 2.150                     | 2.450 | 0.085                | 0.096 |
| e      | 0.650 TYP                 |       | 0.026 TYP            |       |
| e1     | 1.200                     | 1.400 | 0.047                | 0.055 |
| L      | 0.525 REF                 |       | 0.021 REF            |       |
| L1     | 0.260                     | 0.460 | 0.010                | 0.018 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

### SOT-323

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Ordering Information:**

| Device | Package          | Shipping       |
|--------|------------------|----------------|
| BAV70W | SOT-323(Pb-Free) | 3000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

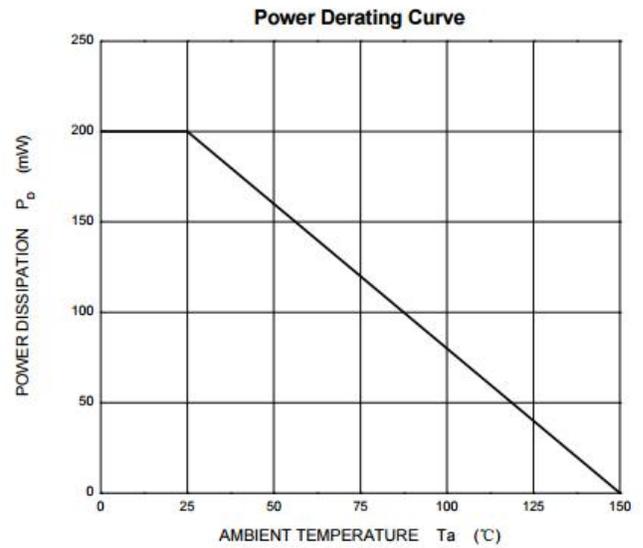
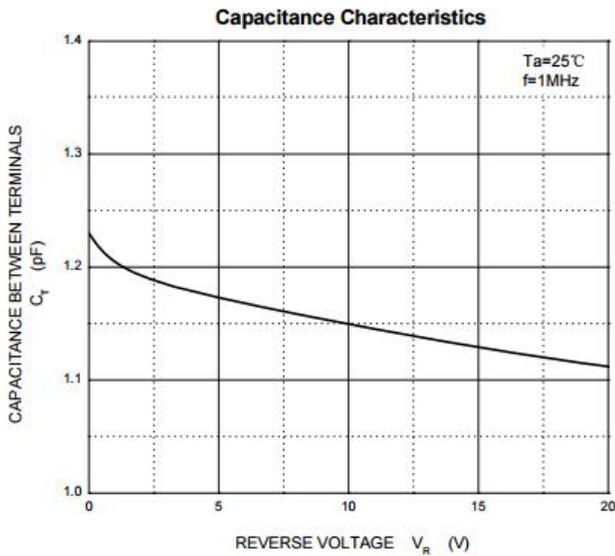
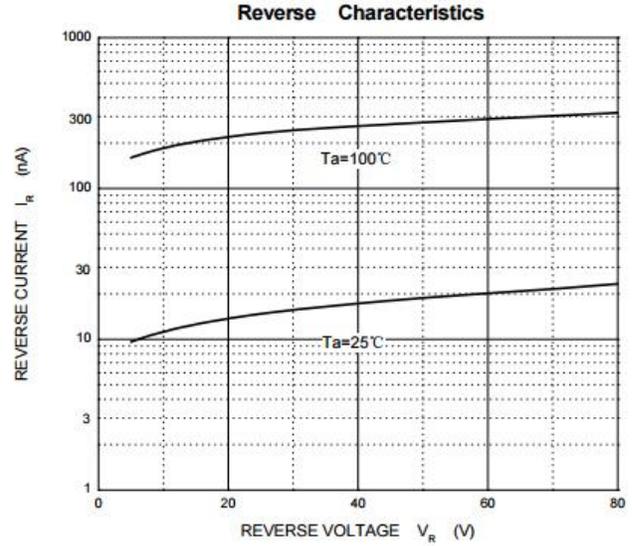
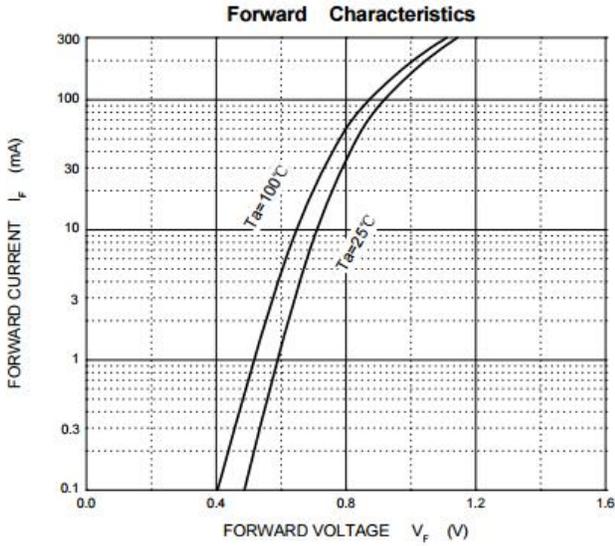
**Maximum Ratings @Ta=25°C**

| Characteristic   | Symbol                          | Value       | Unit |
|--|---------------------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage  | $V_{RM}$                        | 100         | V    |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 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<br>@t=8.3ms                                  | $I_{FSM}$                       | 2.0         | A    |
| Power Dissipation  | $P_D$                           | 200         | mW   |
| Thermal Resistance, Junction to Ambient  | $R_{\theta JA}$                 | 625         | °C/W |
| Junction and Storage Temperature Range   | $T_J, T_{STG}$                  | -65 to +150 | °C   |

**Electrical Characteristics @Ta=25°C**

| Characteristics               | Symbol   | Condition   | Max.  | Units   |
|-------------------------------|----------|---|-------|---------|
| Forward Voltage Drop          | $V_F$    | @ 1mA, Pulse, $T_J = 25^\circ C$  | 0.715 | V       |
|                               |          | @ 10mA, Pulse, $T_J = 25^\circ C$   | 0.855 |         |
|                               |          | @ 50mA, Pulse, $T_J = 25^\circ C$   | 1.0   |         |
|                               |          | @ 150mA, Pulse, $T_J = 25^\circ C$  | 1.25  |         |
| Reverse Current               | $I_{R1}$ | @ $V_R = 75V$ , Pulse,<br>$T_J = 25^\circ C$                                      | 2.5   | $\mu A$ |
|                               | $I_{R2}$ | @ $V_R = 20V$ , Pulse,<br>$T_J = 25^\circ C$                                      | 25    | nA      |
| Capacitance between terminals | $C_T$    | @ $V_R = 0 V$ , $T_C = 25^\circ C$<br>$f_{SIG} = 1MHz$                            | 2     | pF      |
| Reverse Recovery Time         | $t_{rr}$ | $I_F = 10mA$ $I_R = 10mA$<br>$T_J = 25^\circ C$ $I_{rr} = 1 mA$ $R_L = 100\Omega$ | 4     | ns      |

**Typical Characteristics**



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