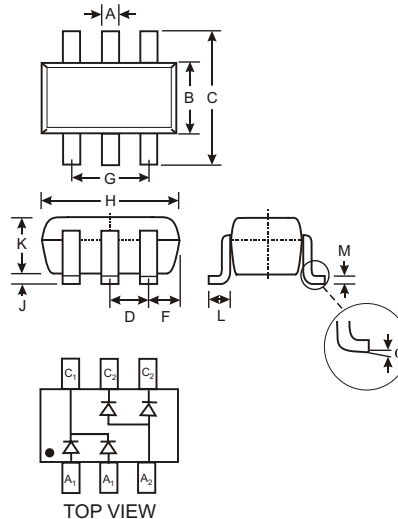


### Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- One BAV70 Circuit and One BAW56 Circuit In One Package

### Mechanical Data

- Case: SOT-363, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: KAC (See Page 3)
- Weight: 0.006 grams (approx.)



| SOT-363              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 0.10         | 0.30 |
| B                    | 1.15         | 1.35 |
| C                    | 2.00         | 2.20 |
| D                    | 0.65 Nominal |      |
| F                    | 0.30         | 0.40 |
| H                    | 1.80         | 2.20 |
| J                    | —            | 0.10 |
| K                    | 0.90         | 1.00 |
| L                    | 0.25         | 0.40 |
| M                    | 0.10         | 0.25 |
| α                    | 0°           | 8°   |
| All Dimensions in mm |              |      |

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

| Characteristic                                                                         | Symbol                                                 | Value       | Unit |
|----------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|------|
| Non-Repetitive Peak Reverse Voltage                                                    | V <sub>RM</sub>                                        | 100         | V    |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | V <sub>RRM</sub><br>V <sub>RWM</sub><br>V <sub>R</sub> | 75          | V    |
| RMS Reverse Voltage                                                                    | V <sub>R(RMS)</sub>                                    | 53          | V    |
| Forward Continuous Current (Note 1)                                                    | I <sub>FM</sub>                                        | 300         | mA   |
| Average Rectified Output Current (Note 1)                                              | I <sub>O</sub>                                         | 150         | mA   |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0μs<br>@ t = 1.0s                    | I <sub>FSM</sub>                                       | 2.0<br>1.0  | A    |
| Power Dissipation (Note 1)                                                             | P <sub>d</sub>                                         | 200         | mW   |
| Thermal Resistance Junction to Ambient Air (Note 1)                                    | R <sub>θJA</sub>                                       | 625         | °C/W |
| Operating and Storage Temperature Range                                                | T <sub>j</sub> , T <sub>STG</sub>                      | -65 to +150 | °C   |

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

| Characteristic                     | Symbol             | Min | Max                           | Unit                 | Test Condition                                                                                                                               |
|------------------------------------|--------------------|-----|-------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Reverse Breakdown Voltage (Note 2) | V <sub>(BR)R</sub> | 75  | —                             | V                    | I <sub>R</sub> = 2.5μA                                                                                                                       |
| Forward Voltage (Note 2)           | V <sub>F</sub>     | —   | 0.715<br>0.855<br>1.0<br>1.25 | V                    | I <sub>F</sub> = 1.0mA<br>I <sub>F</sub> = 10mA<br>I <sub>F</sub> = 50mA<br>I <sub>F</sub> = 150mA                                           |
| Reverse Current (Note 2)           | I <sub>R</sub>     | —   | 2.5<br>50<br>30<br>25         | μA<br>μA<br>μA<br>nA | V <sub>R</sub> = 75V<br>V <sub>R</sub> = 75V, T <sub>j</sub> = 150°C<br>V <sub>R</sub> = 25V, T <sub>j</sub> = 150°C<br>V <sub>R</sub> = 20V |
| Total Capacitance                  | C <sub>T</sub>     | —   | 2.0                           | pF                   | V <sub>R</sub> = 0, f = 1.0MHz                                                                                                               |

- Notes:
1. Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
  2. Short duration test pulse used to minimize self-heating effect.

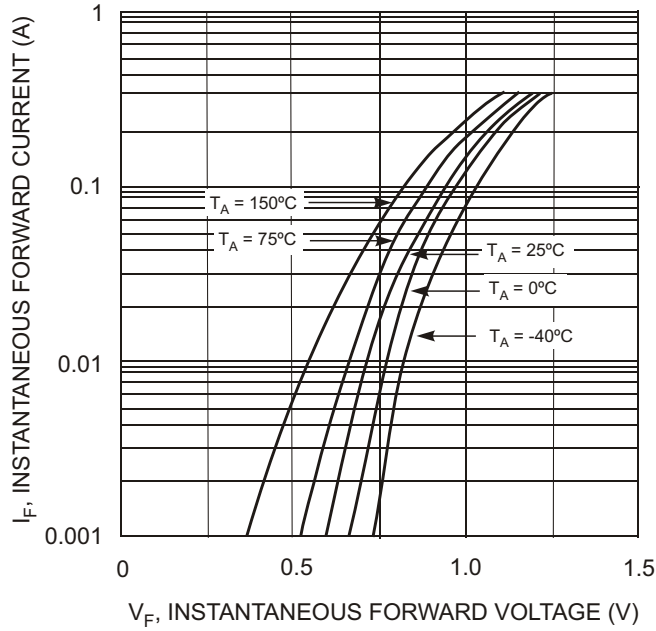


Fig. 1 Forward Characteristics

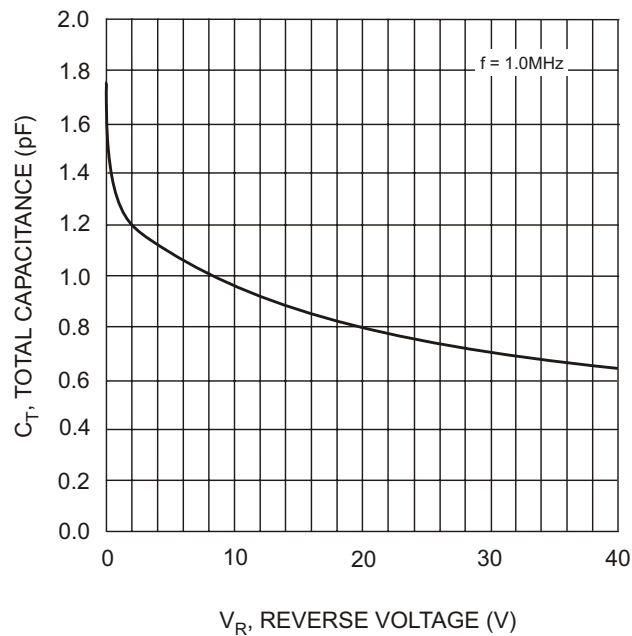


Fig. 3 Typical Capacitance vs. Reverse Voltage

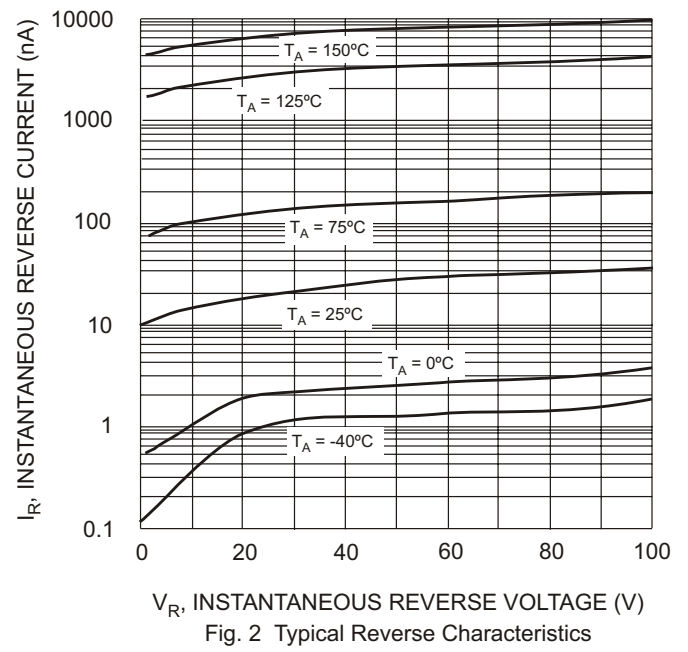


Fig. 2 Typical Reverse Characteristics

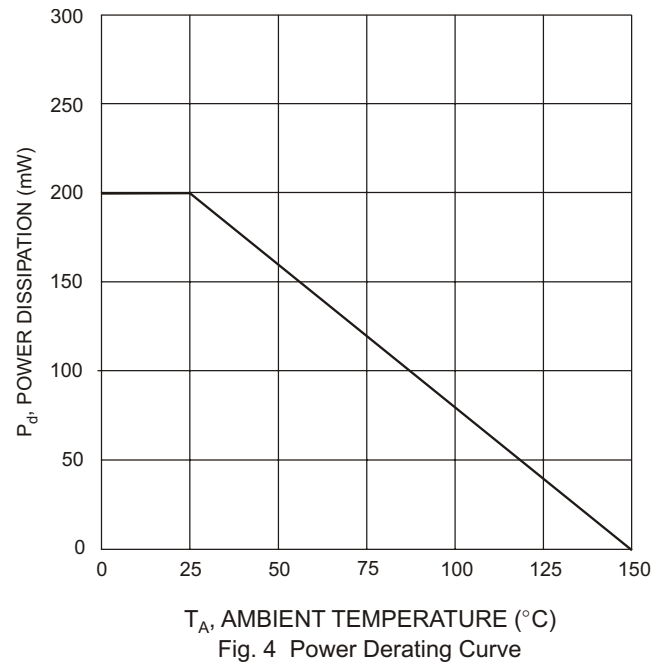


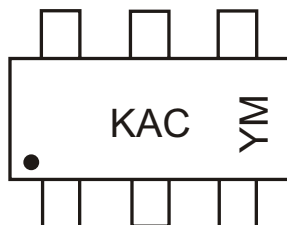
Fig. 4 Power Derating Curve

## Ordering Information (Note 3)

| Device     | Packaging | Shipping         |
|------------|-----------|------------------|
| BAW567DW-7 | SOT-363   | 3000/Tape & Reel |

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

## Marking Information



KAC = Product Type Marking Code  
YM = Date Code Marking  
Y = Year ex: N = 2002  
M = Month ex: 9 = September

### Date Code Key

| Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|------|------|------|------|------|------|------|------|------|------|
| Code | M    | N    | P    | R    | S    | T    | U    | V    | W    |

| Month | Jan | Feb | March | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Code  | 1   | 2   | 3     | 4   | 5   | 6   | 7   | 8   | 9   | O   | N   | D   |