



# BAV99BRW

## QUAD SURFACE MOUNT SWITCHING DIODE ARRAY

### FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Easily Connected As Full-Wave Bridge
- In compliance with EU RoHS 2002/95/EC directives

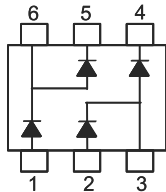
### MECHANICAL DATA

Case : SOT-363, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

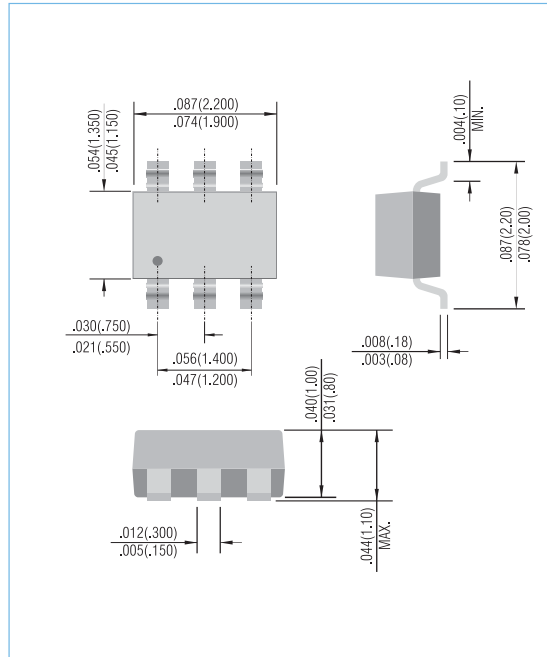
Approx. Weight : 0.006 gram

Marking : PW



SOT-363

Unit: inch ( mm )



### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

| PARAMETER   | SYMBOL                            | VALUE                 | UNIT |
|---|-----------------------------------|-----------------------|------|
| Non-Repetitive Peak Reverse Voltage                 | V <sub>RM</sub>                   | 100                   | V    |
| Peak Repetitive Reverse Voltage                     | V <sub>RRM</sub>                  | 75                    | V    |
| Working Peak Reverse Voltage                        | V <sub>RWM</sub>                  |                       |      |
| DC Blocking Voltage                                 | V <sub>R</sub>                    |                       |      |
| 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>                    | 215                   | mA   |
| Non-Repetitive Peak Forward Surge Current           | I <sub>FSM</sub>                  | 4.0<br>0.7            | A    |
|   |                                   | @ t=1.0μs<br>@ t=1.0s |      |
| 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> | -55 to + 150          | °C   |

Notes : 1. Device mounted on FR-4 PC board with recommended pad layout

2. Short duration test pulse used to minimize self-heating effect

3. No Purposefully added lead



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## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

| PARAMETER                          | TEST CONDITION   | SYMBOL             | MIN. | MAX.                          | UNIT                 |
|------------------------------------|--|--------------------|------|-------------------------------|----------------------|
| Reverse Breakdown Voltage (Note 2) | I <sub>R</sub> =2.5μA  | V <sub>(BR)R</sub> | 75   | -                             | V                    |
| Forward Voltage                    | I <sub>F</sub> =1.0mA<br>I <sub>F</sub> =10mA<br>I <sub>F</sub> =50mA<br>I <sub>F</sub> =150mA   | V <sub>F</sub>     | -    | 0.715<br>0.855<br>1.0<br>1.25 | V                    |
| Reverse Current (Note 2)           | 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> =25V | I <sub>R</sub>     | -    | 2.5<br>50<br>30<br>0.03       | μA<br>μA<br>μA<br>μA |
| Total Capacitance                  | V <sub>R</sub> =0, f=1.0MHz  | C <sub>T</sub>     | -    | 2.0                           | pF                   |
| Reverse Recovery Time              | I <sub>F</sub> =I <sub>R</sub> =10mA,<br>I <sub>RR</sub> =0.1 I <sub>R</sub> , R <sub>L</sub> =100Ω                                    | T <sub>RR</sub>    | -    | 4.0                           | ns                   |

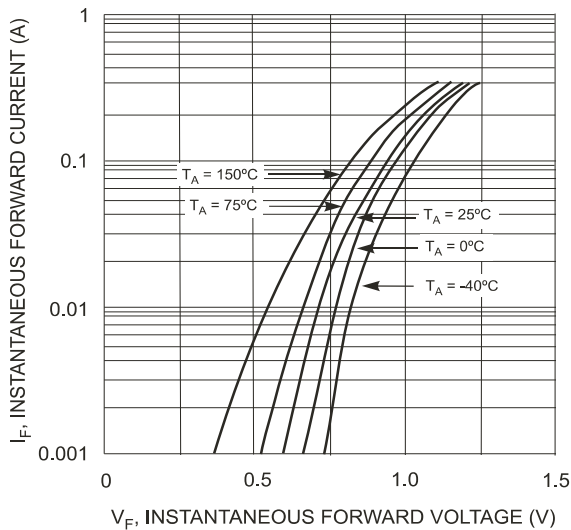


Fig. 1 Forward Characteristics

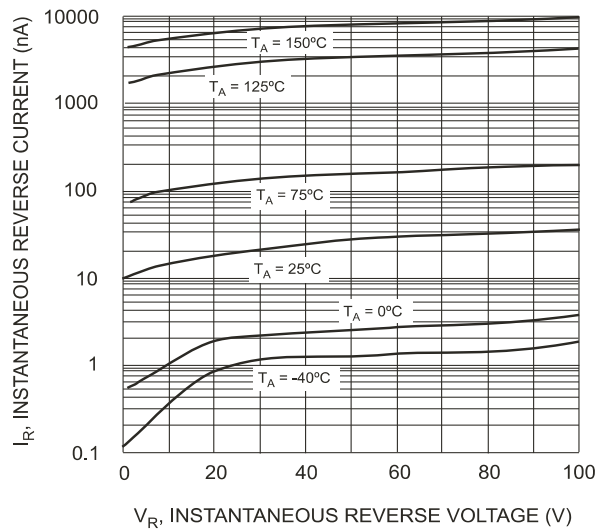


Fig. 2 Typical Reverse Characteristics

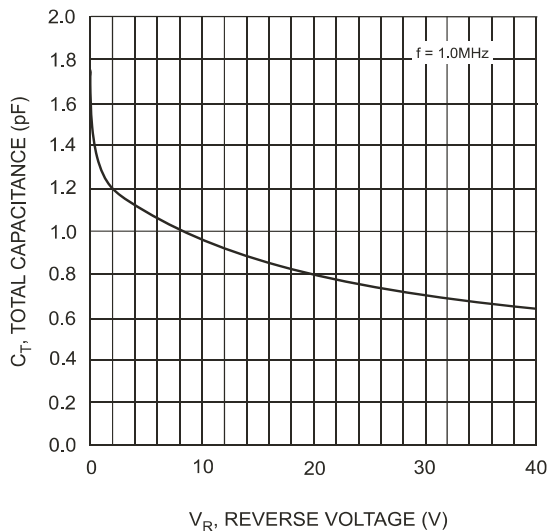


Fig. 3 Typical Capacitance vs. Reverse Voltage

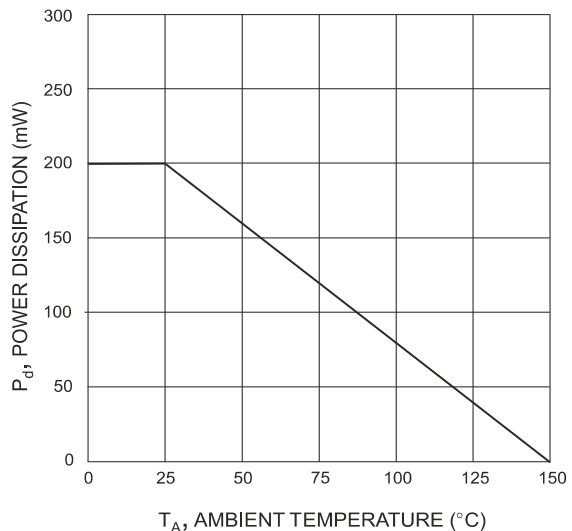
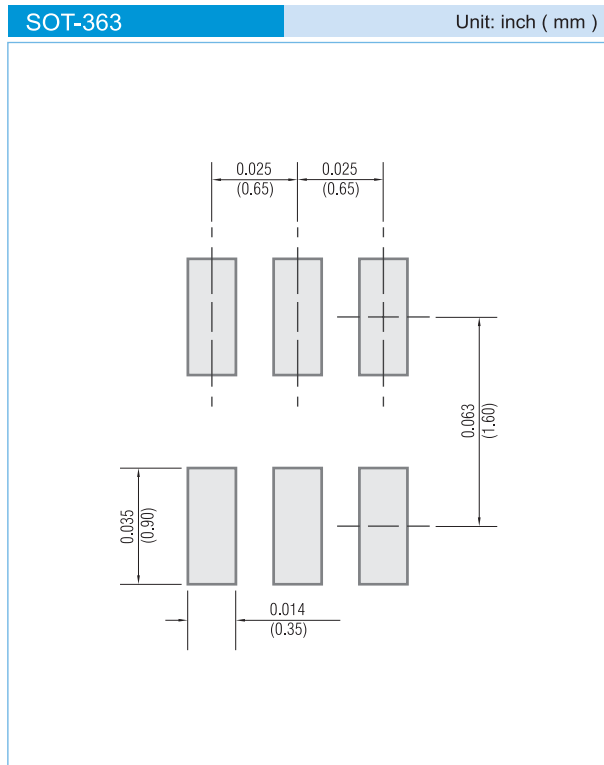


Fig. 4 Power Derating Curve



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

## LEGAL STATEMENT

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