

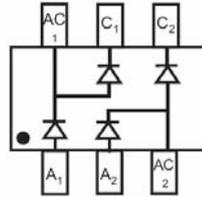


# SOT-363 Plastic-Encapsulate Diodes

## BAV99BRW SWITCHING DIODE

### FEATURES

- ⌘ Fast Switching Speed
- ⌘ Ultra-Small Surface Mount Package
- ⌘ For General Purpose Switching Applications
- ⌘ High Conductance



### MAKING: KGJ

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

| Parameter   | Symbol   | Limits  | Unit |
|---|--|---------|------|
| Peak Repetitive Peak 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    |
| Forward Continuous Current  | I <sub>FM</sub>  | 300     | mA   |
| Average Rectified Output Current  | I <sub>O</sub>   | 150     | mA   |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0 us<br>@ t = 1.0s                        | I <sub>FSM</sub>                                       | 2<br>1  | A    |
| Power Dissipation   | P <sub>D</sub>   | 200     | mW   |
| Thermal Resistance Junction to Ambient Air  | R <sub>θJA</sub>                                       | 625     | °C/W |
| Operating Junction Temperature  | T <sub>J</sub>   | 150     | °C   |
| Storage temperature   | T <sub>STG</sub>                                       | -65-150 | °C   |

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

| Parameter                       | Symbol             | Test conditions  | MIN | MAX                        | UNIT |
|---------------------------------|--------------------|--|-----|----------------------------|------|
| Reverse breakdown voltage       | V <sub>(BR)R</sub> | I <sub>R</sub> = 2.5 uA  | 75  |                            | V    |
| Reverse voltage leakage current | I <sub>R</sub>     | V <sub>R</sub> =75V<br>V <sub>R</sub> =20V   |     | 2.5<br>0.025               | uA   |
| Forward voltage                 | V <sub>F</sub>     | I <sub>F</sub> =1mA<br>I <sub>F</sub> =10mA<br>I <sub>F</sub> =50mA<br>I <sub>F</sub> =150mA         |     | 715<br>855<br>1000<br>1250 | mV   |
| Junction capacitance            | C <sub>T</sub>     | V <sub>R</sub> =0, f=1MHz  |     | 2                          | pF   |
| Reveres recovery time           | t <sub>rr</sub>    | I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1X I <sub>R</sub> ,<br>R <sub>L</sub> =100Ω |     | 4                          | nS   |



## Typical Characteristics

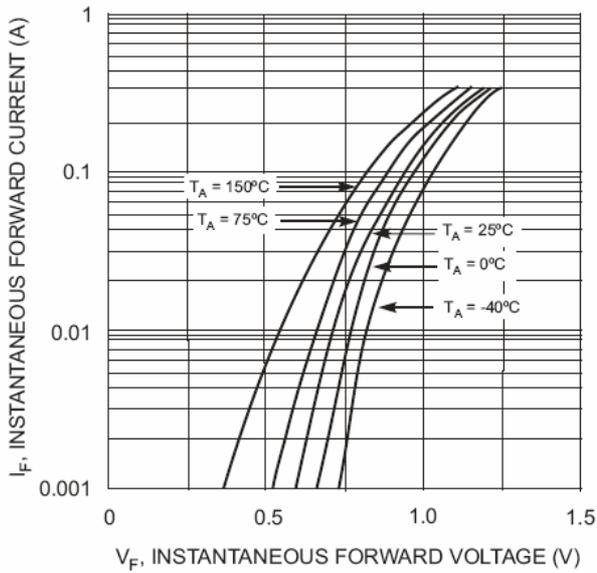


Fig. 1 Forward Characteristics

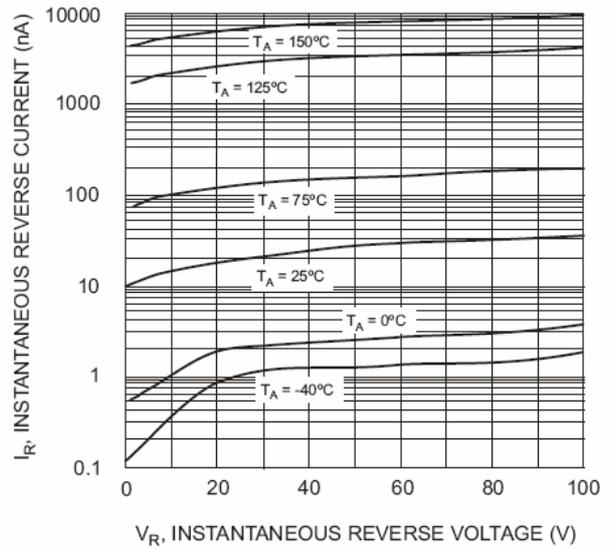


Fig. 2 Typical Reverse Characteristics

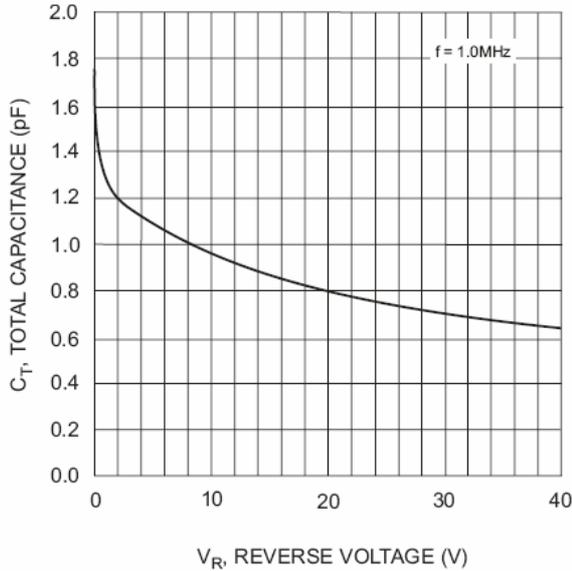


Fig. 3 Typical Capacitance vs. Reverse Voltage

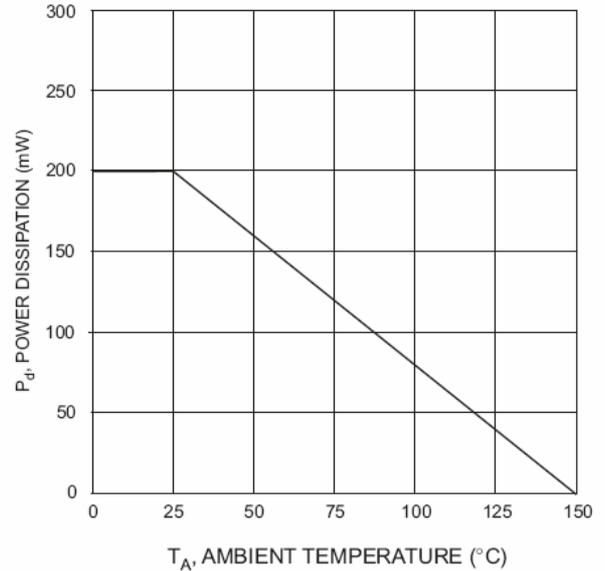


Fig. 4 Power Derating Curve, Note 1