

## Surface Mount Fast Switching Diodes

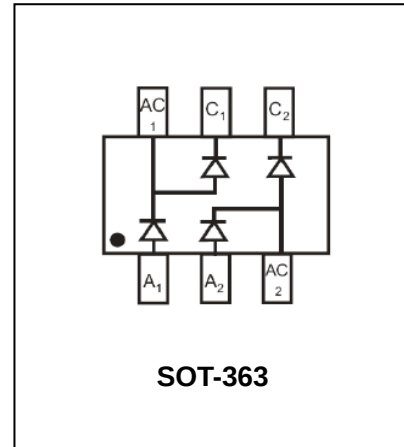
## BAV99BRW

### FEATURES

- Fast switching speed.
- For general purpose switching application.
- Ultra-small surface mount package.
- High conductance.
- Two “BAV99” Circuits in one package.



Lead-free



### APPLICATIONS

- For general purpose switching application.

### ORDERING INFORMATION

| Type No. | Marking | Package Code |
|----------|---------|--------------|
| BAV99BRW | KGJ     | SOT-363      |

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

| Symbol                          | Characteristic                                                                        | Value       | Unit |
|---------------------------------|---------------------------------------------------------------------------------------|-------------|------|
| $V_{RM}$                        | Non-Repetitive Peak Reverse Voltage                                                   | 100         | V    |
| $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | Peak repetitive reverse voltage<br>Working peak reverse voltage<br>DC reverse voltage | 75          | V    |
| $V_{R(RMS)}$                    | RMS Reverse voltage                                                                   | 53          | V    |
| $I_O$                           | Average rectified output current                                                      | 150         | mA   |
| $I_{FSM}$                       | Non-Repetitive Peak Forward Surge Current @t=1.0us<br>@t=1.0s                         | 2.0<br>1.0  | A    |
| $P_D$                           | Power Dissipation                                                                     | 200         | mW   |
| $R_{\theta JA}$                 | Thermal Resistance, Junction to Ambient                                               | 625         | °C/W |
| $T_j, T_{stg}$                  | Operating and Storage Temperature Range                                               | -65 to +150 | °C   |

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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| Parameter                 | Symbol      | Test conditions                                                                    | MIN | MAX                           | UNIT                                |
|---------------------------|-------------|------------------------------------------------------------------------------------|-----|-------------------------------|-------------------------------------|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R=2.5\mu A$                                                                     | 75  |                               | V                                   |
| Forward voltage           | $V_F$       | $I_F=1.0mA$<br>$I_F=10mA$<br>$I_F=50mA$<br>$I_F=150mA$                             |     | 0.715<br>0.855<br>1.0<br>1.25 | V                                   |
| Reverse current           | $I_R$       | $V_R=75V$<br>$V_R=75V, T_j=150^\circ C$<br>$V_R=25V, T_j=150^\circ C$<br>$V_R=20V$ |     | 2.5<br>50<br>30<br>25         | $\mu A$<br>$\mu A$<br>$\mu A$<br>nA |
| Total Capacitance         | $C_J$       | $V_R=0V, f=1.0MHz$                                                                 |     | 2.0                           | pF                                  |
| Reverse Recovery time     | $t_{rr}$    | $I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R,$<br>$R_L=100\Omega$                           |     | 4.0                           | ns                                  |

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

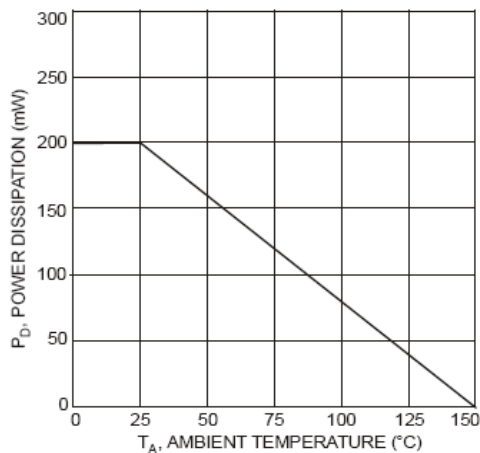


Fig. 1 Power Derating Curve, Total Package

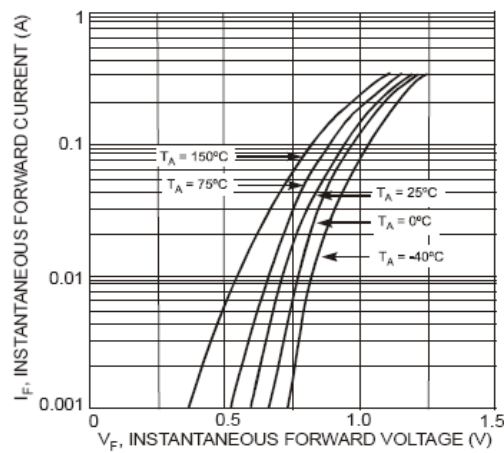


Fig. 2 Typical Forward Characteristics, Per Element

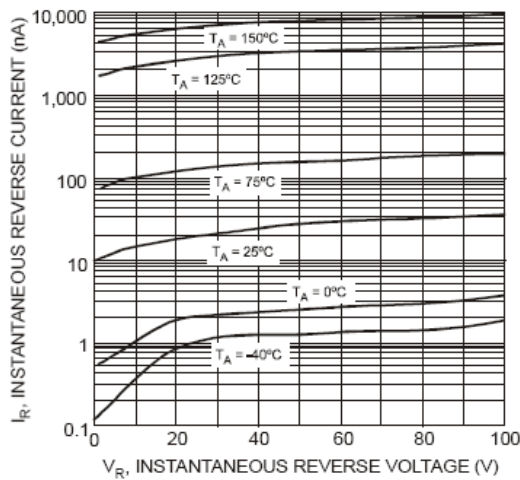


Fig. 3 Typical Reverse Characteristics, Per Element

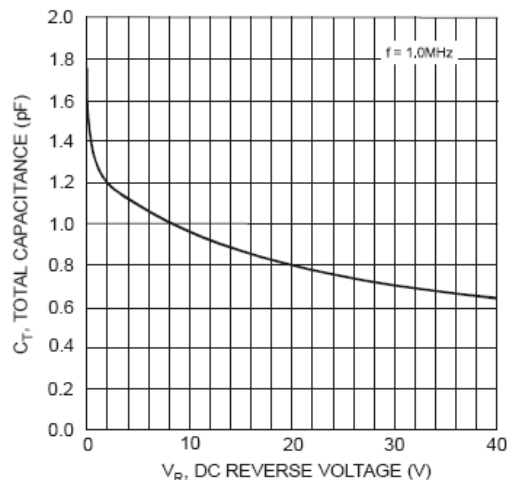


Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

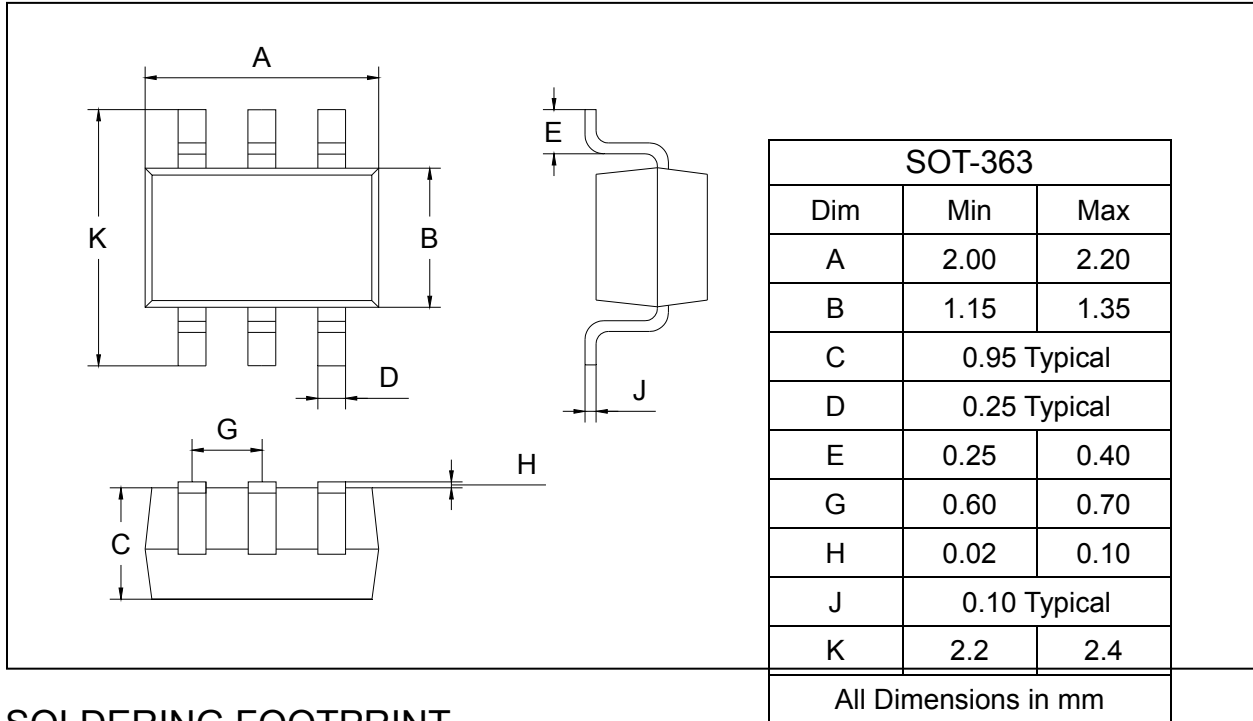
## PACKAGE OUTLINE

## Surface Mount Fast Switching Diodes

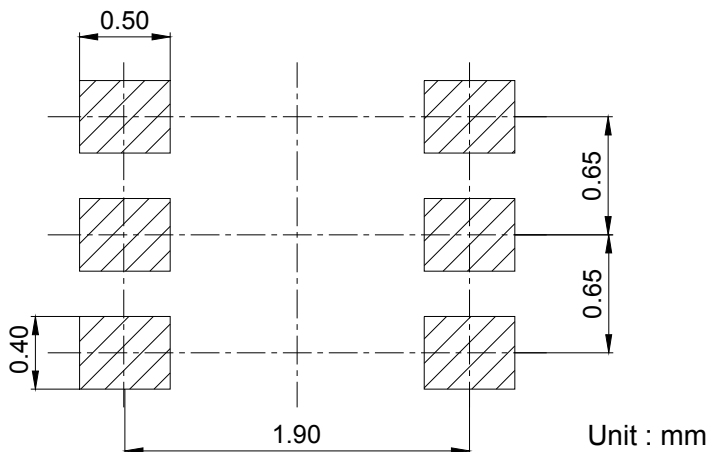
## BAV99BRW

Plastic surface mounted package

SOT-363



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

| Device   | Package | Shipping       |
|----------|---------|----------------|
| BAV99BRW | SOT-363 | 3000/Tape&Reel |