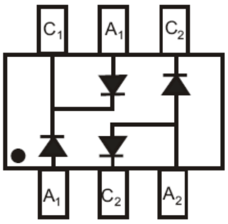
## **Surface Mount Fast Switching Diodes** **BAV756DW**

## FEATURES

- Fast switching speed.
- For general purpose switching application.
- High conductance.
- One BAV70 circuit and one BAW56 circuit in one package.
- Easily connected as full wave bridge.

Lead-free



**SOT-363**

## APPLICATIONS

- For general purpose switching application.

## ORDERING INFORMATION

| Type No. | Marking | Package Code |
|---|---|---|
| BAV756DW | KCA | SOT-363 |

## MAXIMUM RATING @ Ta=25℃ unless otherwise specified

| **Symbol** | **Characteristic** | **Value** | **Unit** |
|---|---|---|---|
| $V_{RM}$ | Non-Repetitive Peak Reverse Voltage | 100 | V |
| $V_R$ | 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 | ℃/W |
| $T_j, T_{stg}$ | Junction and Storage Temperature | -65 to +150 | ℃ |

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## ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R$=2.5μA | 75 | | V |
| Reverse voltage leakage current | $I_R$ | $V_R$=75V<br>$V_R$=75V,$T_j$=150℃<br>$V_R$=25V,$T_j$=150℃<br>$V_R$=20V | | 2.5<br>50<br>30<br>25 | μA<br>μA<br>μA<br>nA |
| 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 |
| Total Capacitance | $C_T$ | $V_R$=0V,f=1.0MHz | | 2.0 | pF |
| Reverse Recovery time | $t_{rr}$ | $I_F$=$I_R$=10mA,$I_{rr}$=0.1*$I_R$,<br>$R_L$=100Ω | | 4.0 | ns |

## TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

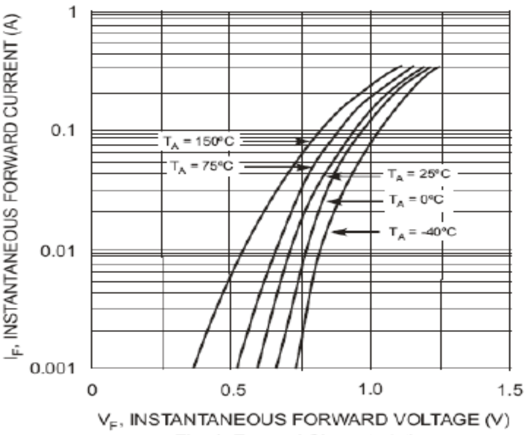


Fig. 1 Forward Characteristics

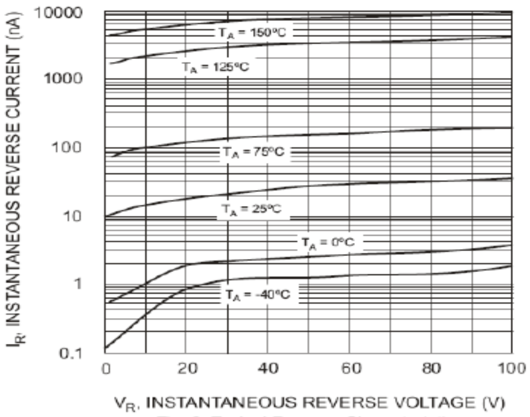


Fig. 2 Typical Reverse Characteristics

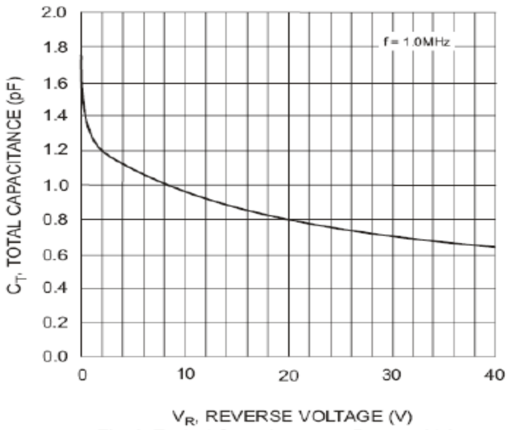


Fig. 3 Typical Capacitance vs. Reverse Voltage

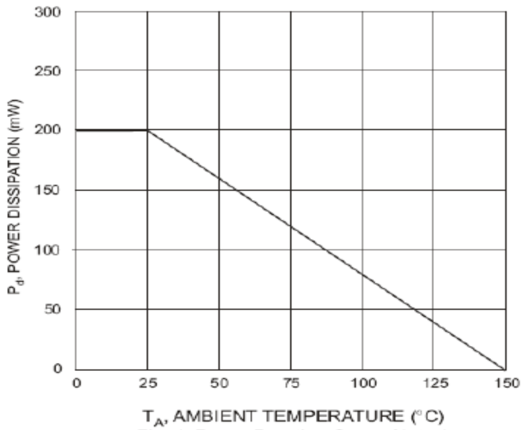
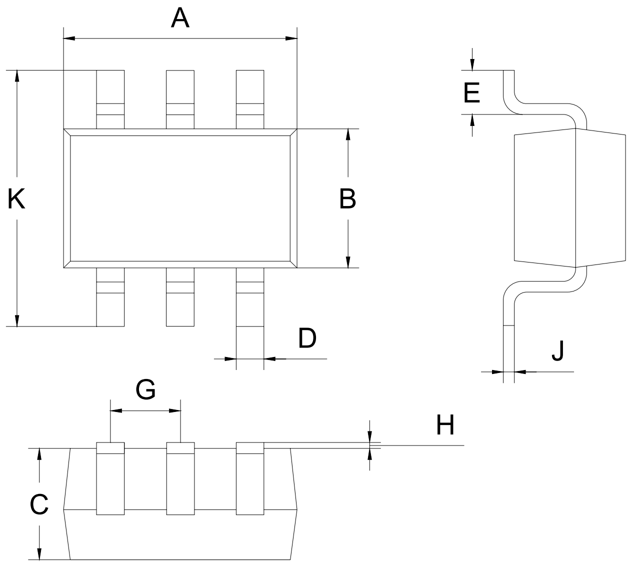


Fig. 4 Power Derating Curve, Note 1

## **Surface Mount Fast Switching Diodes** **BAV756DW**

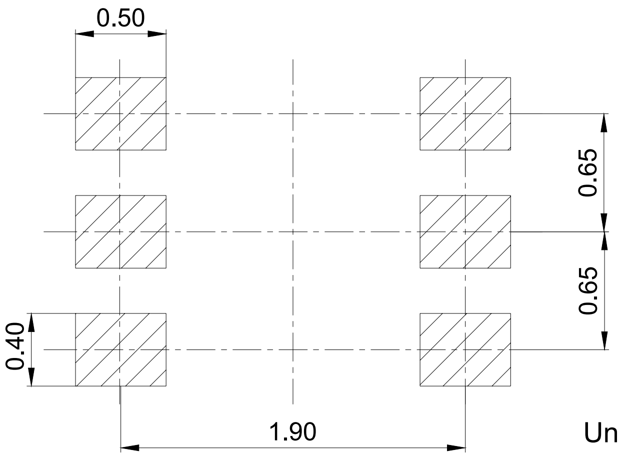
## PACKAGE OUTLINE

Plastic surface mounted package SOT-363



| SOT-363 | | |
|---|---|---|
| Dim | Min | Max |
| A | 2.00 | 2.20 |
| B | 1.15 | 1.35 |
| C | 0.95 Typical | |
| D | 0.25 Typical | |
| E | 0.25 | 0.40 |
| G | 0.60 | 0.70 |
| H | 0.02 | 0.10 |
| J | 0.10 Typical | |
| K | 2.2 | 2.4 |
| All Dimensions in mm | | |

## SOLDERING FOOTPRINT



Unit : mm

## PACKAGE INFORMATION

| Device | Package | Shipping |
|---|---|---|
| BAV756DW | SOT-363 | 3000/Tape&Reel |