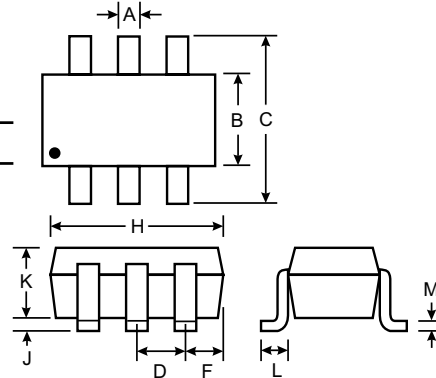


## Features

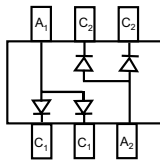
- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

## Mechanical Data

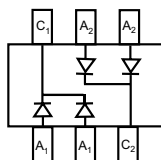
- Case: SOT-363, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Orientation: See Diagrams Below
- Weight: 0.006 grams (approx.)



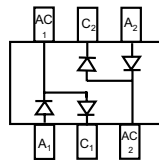
| SOT-363              |              |      |
|----------------------|--------------|------|
| Dim                  | Min          | Max  |
| A                    | 0.10         | 0.30 |
| B                    | 1.15         | 1.35 |
| C                    | 2.00         | 2.20 |
| D               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



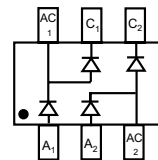
BAS70DW-06\*  
Marking: K76



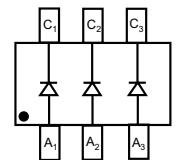
BAS70DW-05\*  
Marking: K71



BAS70DW-04\*  
Marking: K74



BAS70BRW  
Marking: K75



BAS70TW  
Marking: K73

\*Symmetrical configuration, no orientation indicator.

## Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic                                                                         | Symbol                          | Value                      | Unit             |
|----------------------------------------------------------------------------------------|---------------------------------|----------------------------|------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 70                         | V                |
| RMS Reverse Voltage                                                                    | $V_{R(RMS)}$                    | 49                         | V                |
| Forward Continuous Current (Note 1)                                                    | $I_{FM}$                        | 70                         | mA               |
| Non-Repetitive Peak Forward Surge Current @ $t < 1.0\text{s}$                          | $I_{FSM}$                       | 100                        | mA               |
| Power Dissipation (Note 1)                                                             | $P_d$                           | 200                        | mW               |
| Thermal Resistance Junction to Ambient Air (Note 1)                                    | $R_{\theta JA}$                 | 625                        | K/W              |
| Operating and Storage Temperature Range                                                | $T_j$<br>$T_{STG}$              | -55 to +125<br>-65 to +125 | $^\circ\text{C}$ |

## Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

| Characteristic               | Symbol   | Min | Max         | Unit     | Test Condition                                                                                       |
|------------------------------|----------|-----|-------------|----------|------------------------------------------------------------------------------------------------------|
| Maximum Forward Voltage      | $V_{FM}$ | —   | 410<br>1000 | mV<br>mV | $t_p < 300\mu\text{s}$ , $I_F = 1.0\text{mA}$<br>$t_p < 300\mu\text{s}$ , $I_F = 15\text{mA}$        |
| Maximum Peak Reverse Current | $I_{RM}$ | —   | 100         | nA       | $t_p < 300\mu\text{s}$ , $V_R = 50\text{V}$                                                          |
| Junction Capacitance         | $C_j$    | —   | 2.0         | pF       | $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$                                                              |
| Reverse Recovery Time        | $t_{rr}$ | —   | 5.0         | ns       | $I_F = I_R = 10\text{mA}$ to $I_R = 1.0\text{mA}$ ,<br>$I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$ |

Notes: 1. Valid Provided that terminals are kept at ambient temperature.