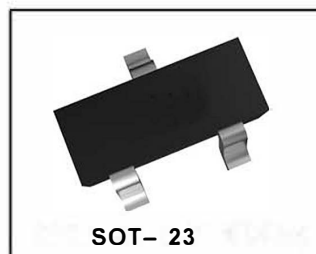
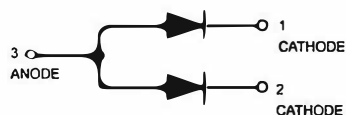


## Monolithic Dual Switching Diode Common Anode

Pb-Free Package is Available.



### ● MAXIMUM RATINGS (EACH DIODE)

| Rating                     | Symbol          | Value | Unit |
|----------------------------|-----------------|-------|------|
| Reverse Voltage            | $V_R$           | 70    | Vdc  |
| Forward Current            | $I_F$           | 200   | mAdc |
| Peak Forward Surge Current | $I_{FM(surge)}$ | 500   | mAdc |

### ● THERMAL CHARACTERISTICS

| Characteristic   | Symbol          | Max         | Unit               |
|--|-----------------|-------------|--------------------|
| Total Device Dissipation FR-5 Board (1)<br>$T_A = 25\text{ }^\circ\text{C}$<br>erate above $25\text{ }^\circ\text{C}$          | $P_D$           | 225         | mW                 |
| Thermal Resistance, Junction to Ambient  | $R_{\theta JA}$ | 556         | $^\circ\text{C/W}$ |
| Total Device Dissipation<br>Alumina Substrate, (2) $T_A = 25\text{ }^\circ\text{C}$<br>Derate above $25\text{ }^\circ\text{C}$ | $P_D$           | 300         | mW                 |
| Thermal Resistance, Junction to Ambient  | $R_{\theta JA}$ | 417         | $^\circ\text{C/W}$ |
| Junction and Storage Temperature   | $T_J, T_{stg}$  | -55 to +150 | $^\circ\text{C}$   |

### ● DEVICE MARKING

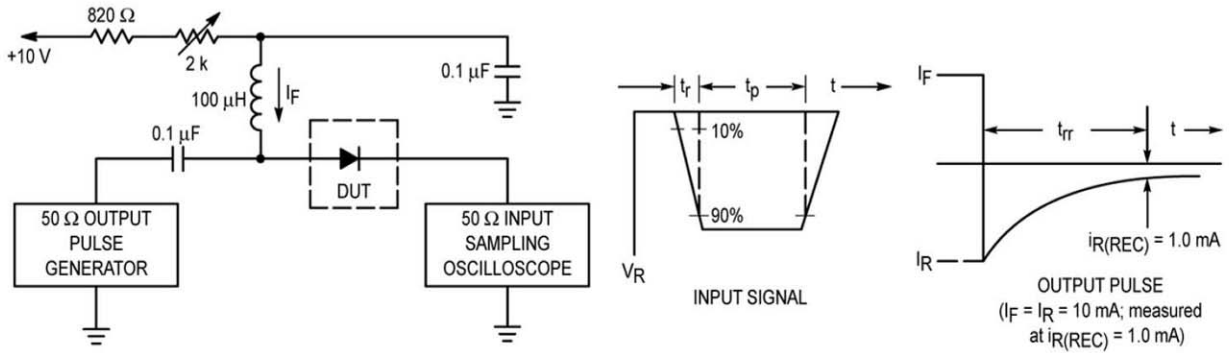
|            |
|------------|
| BAW56 = A1 |
|------------|

### ● ELECTRICAL CHARACTERISTICS ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

| Characteristic   | Symbol     | Min | Max                        | Unit            |
|--|------------|-----|----------------------------|-----------------|
| <b>OFF CHARACTERISTICS</b>   |            |     |                            |                 |
| Reverse Breakdown Voltage<br>( $I_{(BR)} = 100\text{ }\mu\text{Adc}$ )   | $V_{(BR)}$ | 70  | —                          | Vdc             |
| Reverse Voltage Leakage Current<br>( $V_R = 25\text{ Vdc}, T_J = 150\text{ }^\circ\text{C}$ )<br>( $V_R = 70\text{ Vdc}$ )<br>( $V_R = 70\text{ Vdc}, T_J = 150\text{ }^\circ\text{C}$ ) | $I_R$      | —   | 30<br>2.5<br>50            | $\mu\text{Adc}$ |
| Diode Capacitance<br>( $V_R = 0, f = 1.0\text{ MHz}$ )   | $C_D$      | —   | 2.0                        | pF              |
| Forward Voltage<br>( $I_F = 1.0\text{ mAdc}$ )<br>( $I_F = 10\text{ mAdc}$ )<br>( $I_F = 50\text{ mAdc}$ )<br>( $I_F = 150\text{ mAdc}$ )  | $V_F$      | —   | 715<br>855<br>1000<br>1250 | mVdc            |
| Reverse Recovery Time<br>( $I_F = I_R = 10\text{ mAdc}, I_{(RECC)} = 1.0\text{ mAdc}$ ) (Figure 1) $R_L = 100\Omega$   | $t_{rr}$   | —   | 6.0                        | ns              |

1. FR-5 =  $1.0 \times 0.75 \times 0.062$  in.

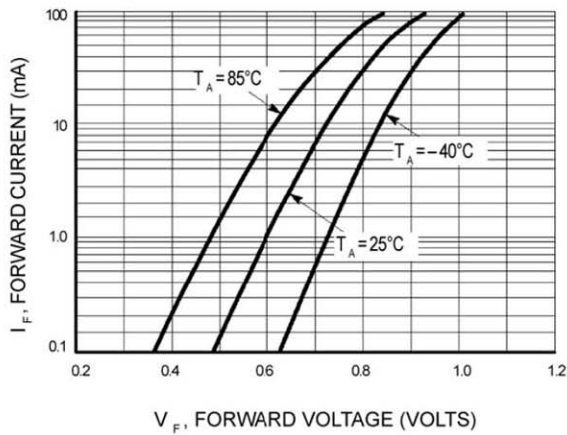
2. Alumina =  $0.4 \times 0.3 \times 0.024$  in. 99.5% alumina.



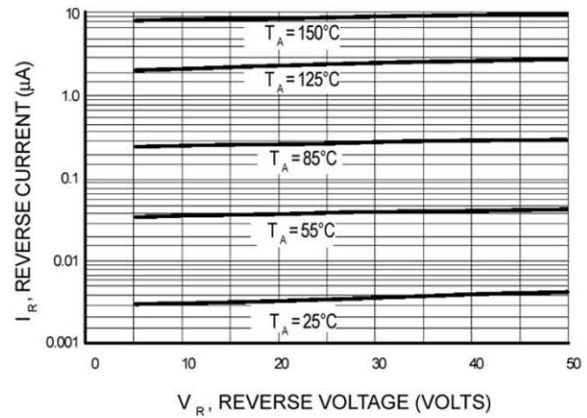
- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current ( $I_F$ ) of 10 mA.  
 2. Input pulse is adjusted so  $I_{R(\text{peak})}$  is equal to 10 mA.  
 3.  $t_p \gg t_{rr}$

**Figure 1. Recovery Time Equivalent Test Circuit**

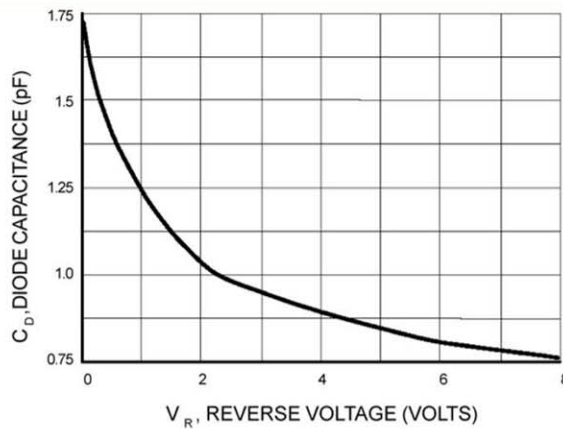
**CURVES APPLICABLE TO EACH CATHODE**



**Figure 2. Forward Voltage**

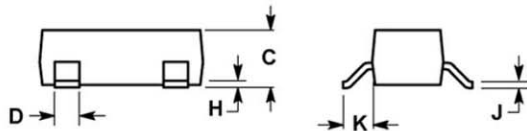
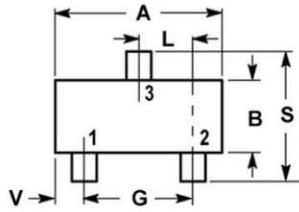


**Figure 3. Leakage Current**



**Figure 4. Capacitance**

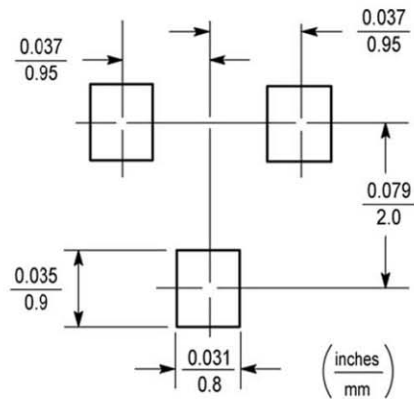
## SOT-23



### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

| DIM | INCHES |        | MILLIMETERS |       |
|-----|--------|--------|-------------|-------|
|     | MIN    | MAX    | MIN         | MAX   |
| A   | 0.1102 | 0.1197 | 2.80        | 3.04  |
| B   | 0.0472 | 0.0551 | 1.20        | 1.40  |
| C   | 0.0350 | 0.0440 | 0.89        | 1.11  |
| D   | 0.0150 | 0.0200 | 0.37        | 0.50  |
| G   | 0.0701 | 0.0807 | 1.78        | 2.04  |
| H   | 0.0005 | 0.0040 | 0.013       | 0.100 |
| J   | 0.0034 | 0.0070 | 0.085       | 0.177 |
| K   | 0.0140 | 0.0285 | 0.35        | 0.69  |
| L   | 0.0350 | 0.0401 | 0.89        | 1.02  |
| S   | 0.0830 | 0.1039 | 2.10        | 2.64  |
| V   | 0.0177 | 0.0236 | 0.45        | 0.60  |



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[JAN1N4454-1](#) [JAN1N4454UR-1](#) [LL4151-GS18](#) [053684A](#) [SMMSD4148T3G](#) [707803H](#) [NSVDAN222T1G](#) [CDSZC01100-HF](#) [LL4150-M-08](#)  
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