

BAW56

SOT23 High Speed Switching Diodes

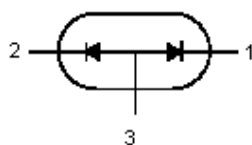


Features:

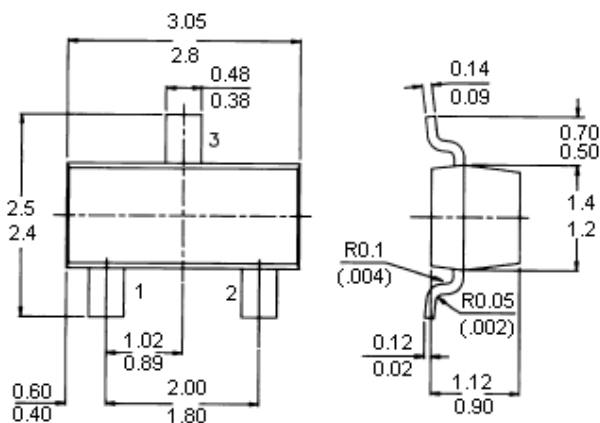
- Silicon planar epitaxial high-speed diodes.
- Silicon planar high-speed switching series diode pair.

Pin Configuration

1. Cathode (k1)
2. Cathode (k2)
3. Anode (a)



Package Outline Details



Absolute Maximum Ratings

| Parameters | Symbol | | Value | Units |
|--|-----------|---------|-------|-------|
| Continuous reverse voltage | V_R | Maximum | 75 | V |
| Repetitive peak reverse voltage | V_{RRM} | | 85 | |
| Repetitive peak forward current | I_{FRM} | | 450 | mA |
| Junction temperature | T_j | | 150 | °C |
| Forward voltage at $I_F = 50\text{mA}$ | V_F | < | 1.0 | V |
| Reverse recovery time when switched from $I_F = 10\text{mA}$ to $I_R = 10\text{mA}$; $R_L = 100\Omega$; measured at $I_R = 1\text{mA}$ | t_{rr} | < | 4 | ns |
| Recovery charge when switched from $I_F = 10\text{mA}$ to $V_R = 5\text{V}$; $R_L = 100\Omega$ | Q_s | < | 45 | pC |



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Ratings (per diode) (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Limiting values | Symbol | | Value | Units |
|--|---------------|---------|---------------|------------------|
| Continuous reverse voltage | V_R | Maximum | 75 | V |
| Repetitive peak reverse voltage | V_{RRM} | | 85 | |
| Forward current (DC) | I_F | | 215 | mA |
| Repetitive peak forward current | I_{FRM} | | 450 | |
| Non-repetitive peak forward current (per crystal) $t = 1\mu\text{s}$ $t = 1\text{ms}$ $t = 1\text{s}$ | I_{FSM} | | 4 1 0.5 | A |
| Storage temperature range | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Junction temperature | T_j | Maximum | 150 | |
| Thermal Resistance | | | | |
| From junction to ambient | $R_{th(j-a)}$ | = | 500 | K/W |

Characteristics (per diode) (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Limiting values | Symbol | | Value | Units |
|---|----------|---|----------------------------|-------|
| $T_j = 25^\circ\text{C}$ unless otherwise specified | - | - | - | - |
| Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 50\text{ mA}$ $I_F = 150\text{ mA}$ | V_F | < | 715 855 1000 1250 | mV |
| Reverse current $V_R = 25\text{V}; T_j = 150^\circ\text{C}$ $V_R = 75\text{V}$ $V_R = 75\text{V}; T_j = 150^\circ\text{C}$ | I_R | < | 30 1.0 50 | mA |
| Diode capacitance $V_R = 0; f = 1\text{MHz}$ | C_d | < | 2.0 | pF |
| Forward recovery voltage when switched to $I_F = 10\text{mA}; t_r = 20\text{ns}$ | V_{fr} | < | 1.75 | V |

Specifications

| V_{RRM} (V) | $I_{F(av)}$ (mA) | V_f (V) at $I_f = 150\text{mA}$ | Device Marking | Package | Type | Package | Part Number |
|------------------|---------------------|--------------------------------------|-------------------|---------|--------------------------|----------|-------------|
| 70 | 200 | 1.25 | A1 | SOT-23 | Dual Diode, Common Anode | 8mm Tape | BAW56 |



Notes:

International Sales Offices:

| | | | |
|--|--|---|--|
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