

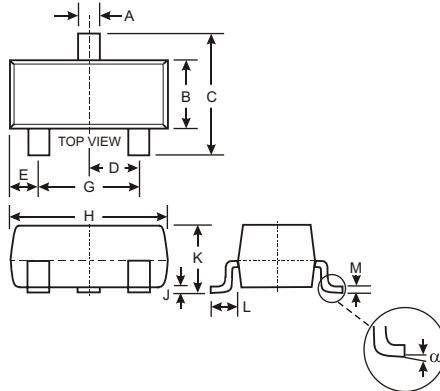


Features

- For high-speed switching application.
- Common cathode.

Mechanical Data

- Case:SOT-23
- Weight: 0.008 grams (approximate)
- Marking: JA



| SOT-23 | | |
|----------|-------|-------|
| Dim | Min | Max |
| A | 0.37 | 0.51 |
| B | 1.20 | 1.40 |
| C | 2.30 | 2.50 |
| D | 0.89 | 1.03 |
| E | 0.45 | 0.60 |
| G | 1.78 | 2.05 |
| H | 2.80 | 3.00 |
| J | 0.013 | 0.10 |
| K | 0.903 | 1.10 |
| L | 0.45 | 0.61 |
| M | 0.085 | 0.180 |
| α | 0° | 8° |

All Dimensions in mm

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

| Parameter | Symbol | Limits | Unit |
|--|-----------|-----------|------|
| Diode reverse voltage | V_R | 50 | V |
| Peak Reverse Voltage | V_{RM} | 50 | V |
| Forward Current | I_F | 200 | mA |
| Surge forward current, $t=1\mu\text{s}$ | I_{FS} | 4.5 | A |
| Total Power Dissipation $T_s=35^\circ\text{C}$ | P_{tot} | 250 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature range | T_{stg} | -65--+150 | °C |

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

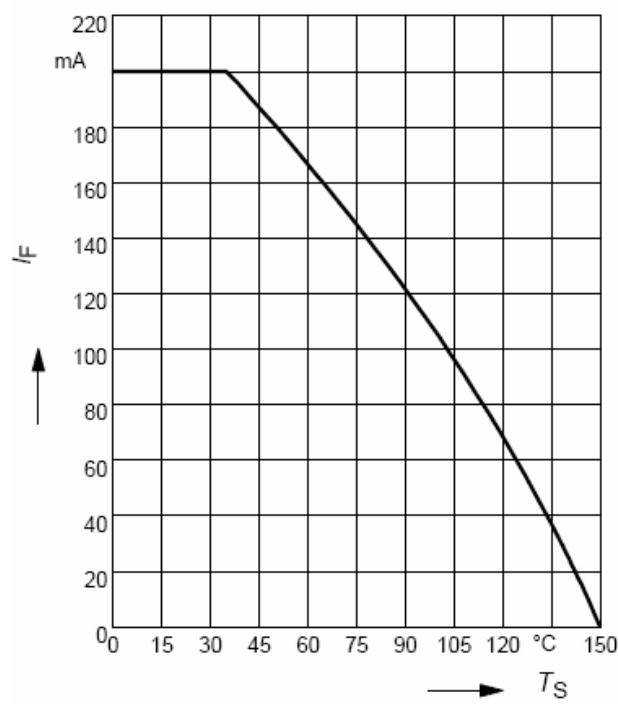
| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---------------------------------|-------------|--|-----|------------|---------------|
| Reverse breakdown voltage | $V_{(BR)R}$ | $I_R = 100\mu\text{A}$ | 50 | | V |
| Reverse voltage leakage current | I_R | $V_R=50\text{V}$ $V_R=50\text{V} T_A=150^\circ\text{C}$ | | 0.1 100 | μA |
| Forward voltage | V_F | $I_F=100\text{mA}$ | | 1 | V |
| Diode capacitance | C_D | $V_R=0\text{V}$ f=1MHz | | 2.0 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=10\text{mA}$ $I_R=1\text{mA}$ $R_L=100\Omega$ | | 4 | nS |



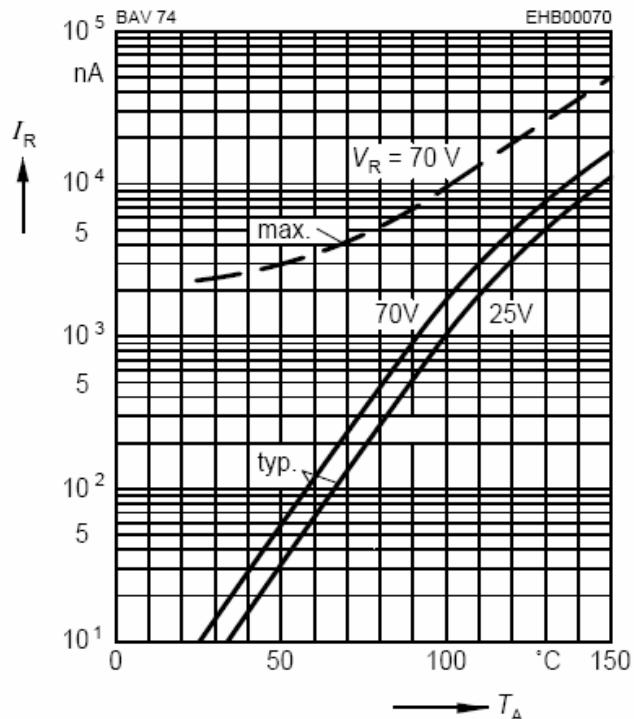
SUNMATE

TYPICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Forward current $I_F = f(T_S)$

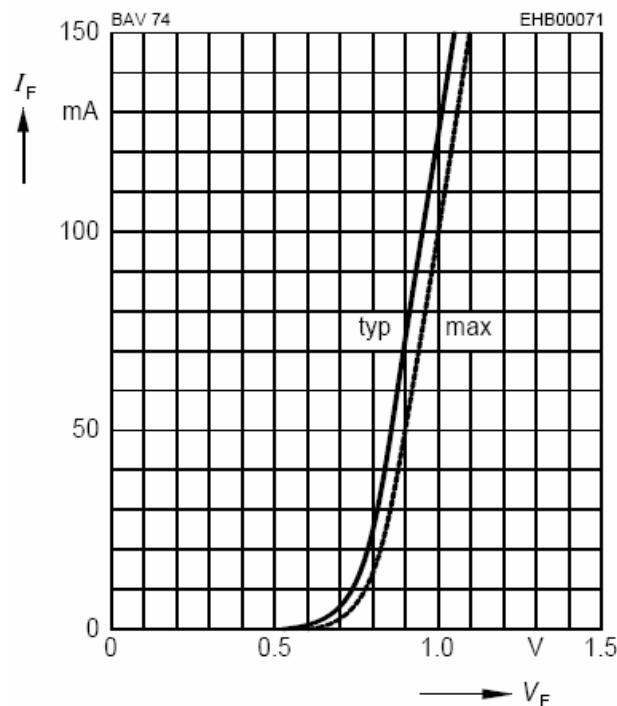


Reverse current $I_R = f(T_A)$



Forward current $I_F = f(V_F)$

$T_A = 25^\circ\text{C}$



Peak forward current $I_{FM} = f(t_p)$

$T_A = 25^\circ\text{C}$

