

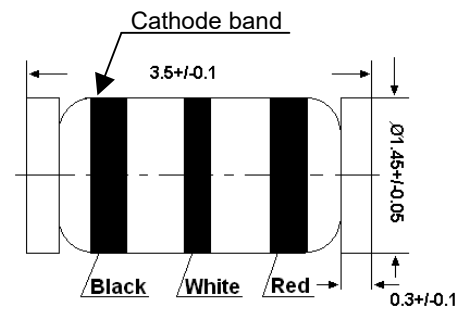
BAS32L

HIGH SPEED DIODE

LL-34

FEATURES

- Small hermetically-sealed glass SMD package
- High switching speed
- Continuous reverse voltage
- Repetitive peak reverse voltage
- Repetitive peak forward current



Glass case MiniMELF
Dimensions in mm

APPLICATION

- High-Speed Switching
- Fast Logic Applications

Absolute Maximum Ratings (Ta = 25 °C)

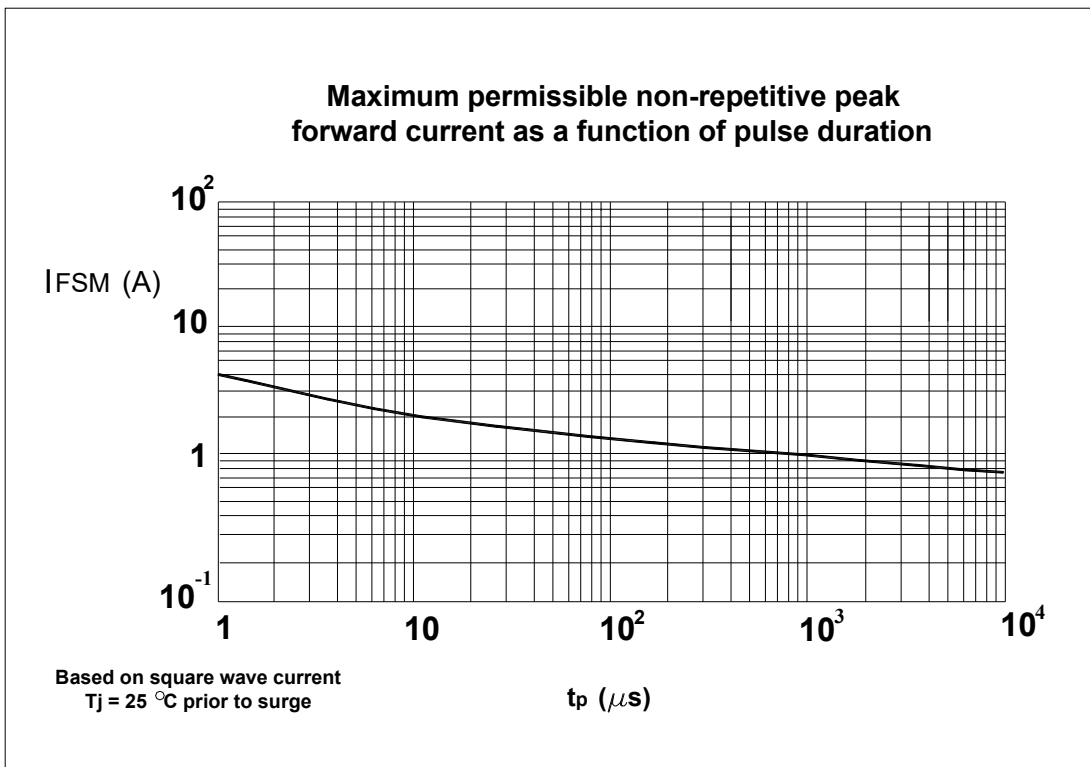
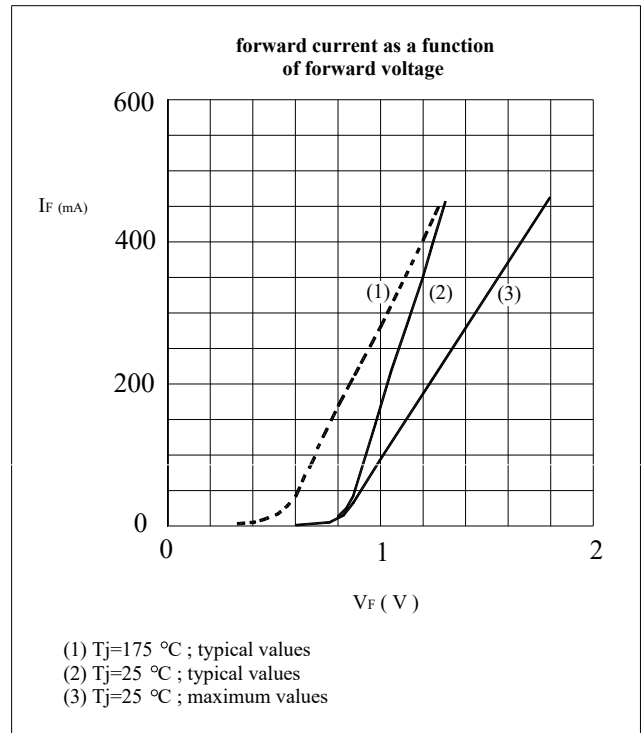
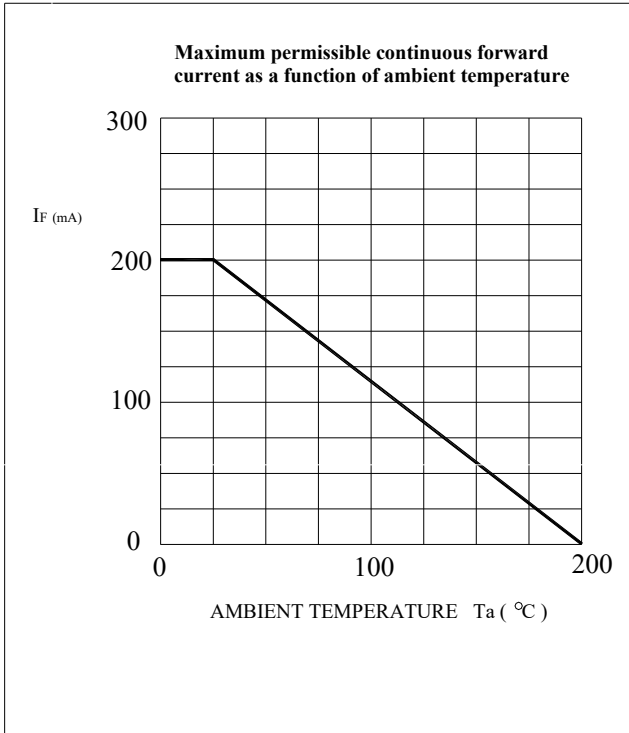
| Parameter | Symbol | Limits | Unit |
|---|-------------|---------------|------|
| Repetitive peak reverse voltage | V_{RRM} | 75 | V |
| Continuous reverse voltage | V_R | 75 | V |
| Continuous forward current (note1) | I_F | 200 | mA |
| Repetitive peak forward current | I_{FRM} | 450 | mA |
| Non-repetitive peak forward current Square wave, $T_j = 25$ °C prior to surge $t = 1\mu s$ $t = 1ms$ $t = 1s$ | I_{FSM} | 4 1 0.5 | A |
| Power dissipation | P_{tot} | 500 | mW |
| Junction temperature | T_j | 200 | °C |
| Storage temperature range | T_s | -65 to +200 | °C |
| Thermal resistance from junction to tie point | R_{thjtp} | 300 | K/W |
| Thermal resistance from junction to ambient | R_{thja} | 350 | K/W |

Note 1: Device mounted on an FR4 printed-circuit board.

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Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|-------------|------|------|------|---------------|
| Forward voltage at $I_F = 5\text{mA}$ | V_F | 620 | - | 750 | mV |
| at $I_F = 100\text{mA}$ | V_F | - | - | 1000 | mV |
| at $I_F = 100\text{mA}$, $T_j = 100^\circ\text{C}$ | V_F | - | - | 930 | mV |
| Reverse current at $V_R = 20\text{V}$ | I_R | - | - | 25 | nA |
| at $V_R = 75\text{V}$ | I_R | - | - | 5 | μA |
| at $V_R = 20\text{V}$, $T_j = 150^\circ\text{C}$ | I_R | - | - | 50 | μA |
| at $V_R = 75\text{V}$, $T_j = 150^\circ\text{C}$ | I_R | - | - | 100 | μA |
| Reverse breakdown voltage at $I_R = 100\mu\text{A}$ | $V_{(BR)R}$ | 100 | - | - | V |
| Diode capacitance $f = 1\text{MHz}$ | C_d | - | - | 2 | pF |
| Reverse recovery time at $I_F = 10\text{mA}$, $I_R = 10\text{mA}$, $R_L = 100\Omega$ measured at $I_R = 1\text{mA}$ | t_{rr} | - | - | 4 | ns |
| Forward recovery voltage $I_F = 50\text{mA}$, $t_r = 20\text{ns}$ | V_{fr} | - | - | 2.5 | V |



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