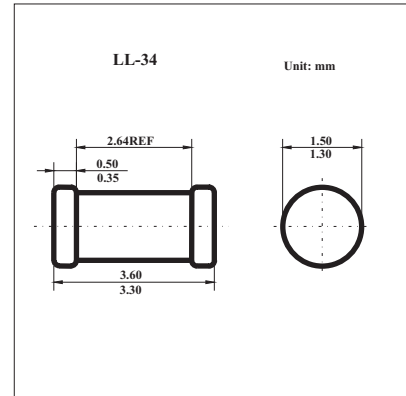


High-speed diode BAS32L

■ Features

- Small hermetically sealed glass SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 75 V
- Repetitive peak forward current: max. 450 mA.



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|-----------------------|-------------|------------------|
| continuous reverse voltage | V_R | 75 | V |
| continuous forward current | I_F | 200 | mA |
| repetitive peak forward current | I_{FRM} | 450 | mA |
| non-repetitive peak forward current | I_{FSM} | 4 | A |
| $t = 1 \mu\text{s}$ | | 1 | |
| $t = 1 \text{ms}$ | | 0.5 | |
| total power dissipation | P_D | 500 | mW |
| thermal resistance from junction to tie-point | $R_{th\ j\text{-}tp}$ | 300 | K/W |
| thermal resistance from junction to ambient | $R_{th\ j\text{-}a}$ | 350 | K/W |
| junction temperature | T_j | 200 | $^\circ\text{C}$ |
| storage temperature | T_{stg} | -65 to +200 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Testconditions | Min. | Max | Unit |
|---------------------------|-------------|--|------|----------------------|---|
| forward voltage | V_F | $I_F = 5 \text{ mA}$ $I_F = 100 \text{ mA}$ $I_F = 100 \text{ mA}; T_J = 100^\circ\text{C}$ | 620 | 750 1000 930 | mV |
| reverse current | I_R | $V_R = 20 \text{ V}$ $V_R = 75 \text{ V}$ $V_R = 20 \text{ V}; T_J = 150^\circ\text{C}$ $V_R = 75 \text{ V}; T_J = 150^\circ\text{C}$ | | 25 5 50 100 | nA μA μA μA |
| reverse breakdown voltage | $V_{(BR)R}$ | $I_R = 100 \mu\text{A}$ | 100 | | V |
| diode capacitance | C_d | $f = 1 \text{ MHz}; V_R = 0\text{V}$ | | 2 | pF |
| reverse recovery time | t_{rr} | when switched from $I_F = 10 \text{ mA}$ to $I_R = 10 \text{ mA}$; $R_L = 100 \Omega$; measured at $I_R = 1 \text{ mA}$ | | 4 | ns |
| forward recovery voltage | V_{fr} | when switched from $I_F = 50 \text{ mA}$; $t_r = 20 \text{ ns}$; | | 2.5 | V |

* Pulsed test: $t_p = 300 \mu\text{s}$; $\delta = 0.02$.