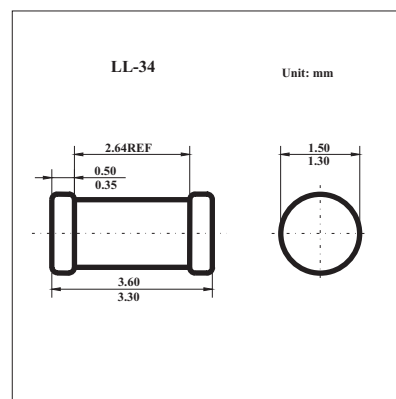


High-speed diode

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 $t = 1 \mu\text{s}$	I_{FSM}	4	A
$t = 1 \text{ ms}$		1	
$t = 1 \text{ s}$		0.5	
total power dissipation	P_D	500	mW
thermal resistance from junction to tie-point	$R_{th j-tp}$	300	K/W
thermal resistance from junction to ambient	$R_{th j-a}$	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	Test conditions	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: $t_p = 300 \mu\text{s}$; $\delta = 0.02$.