

BAS32L

Silicon Epitaxial Planar Switching Diode

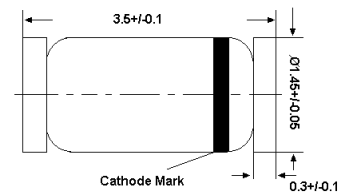
Features

- Small hermetically-sealed glass SMD package
- High switching speed

Application

- High-speed switching
- Fast logic applications

LL-34



Glass case MiniMELF
Dimensions in mm

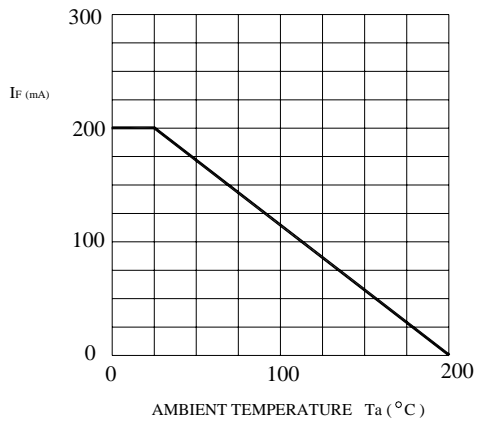
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
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 Surge Current	I_{FSM}	at $t = 1\text{ s}$ 0.5	A
		at $t = 1\text{ ms}$ 1	
		at $t = 1\text{ }\mu\text{s}$ 4	
Power dissipation	P_{tot}	500	mW
Junction temperature	T_j	175	$^\circ\text{C}$
Storage temperature range	T_{stg}	- 65 to + 175	$^\circ\text{C}$

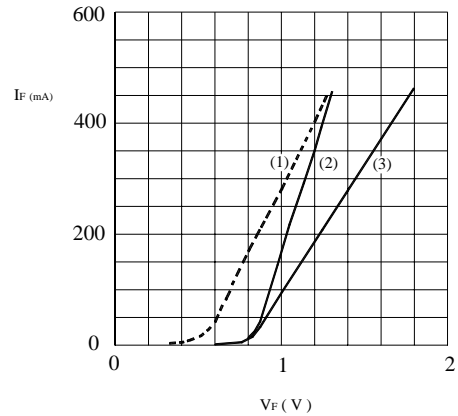
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	V_F	620	at $I_F = 5\text{ mA}$ 750	mV
at $I_F = 100\text{ mA}$			1000	mV
at $I_F = 100\text{ mA}, T_j = 100\text{ }^\circ\text{C}$			930	mV
Reverse Current	I_R	-	at $V_R = 20\text{ V}$ 25	nA
at $V_R = 75\text{ V}$			5	μA
at $V_R = 20\text{ V}, T_j = 150\text{ }^\circ\text{C}$			50	μA
at $V_R = 75\text{ V}, T_j = 150\text{ }^\circ\text{C}$			100	μA
Reverse Breakdown Voltage	$V_{(BR)R}$	100	-	V
Diode Capacitance	C_d	-	2	pF
Reverse Recovery Time	t_{rr}	-	4	ns
at $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}, V_R = 6\text{ V}, R_L = 100\text{ }\Omega$				

Maximum permissible continuous forward current as a function of ambient temperature

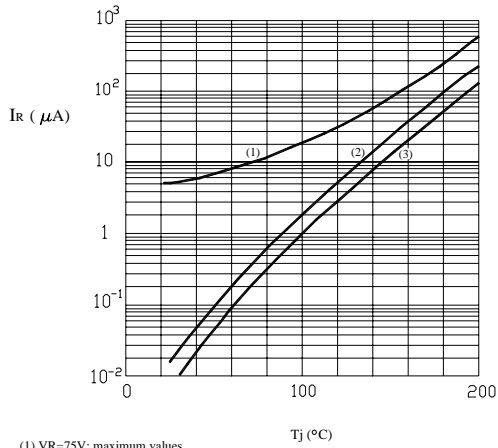


forward current as a function of forward voltage



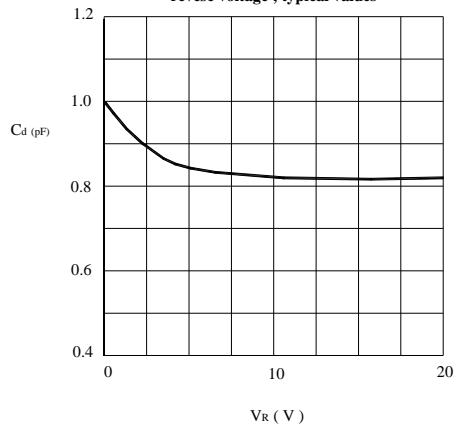
- (1) $T_j=175^{\circ}$ C ; typical values
- (2) $T_j=25^{\circ}$ C ; typical values
- (3) $T_j=25^{\circ}$ C ; maximum values

REVERSE CURRENT AS A FUNCTION OF JUNCTION TEMPERATURE



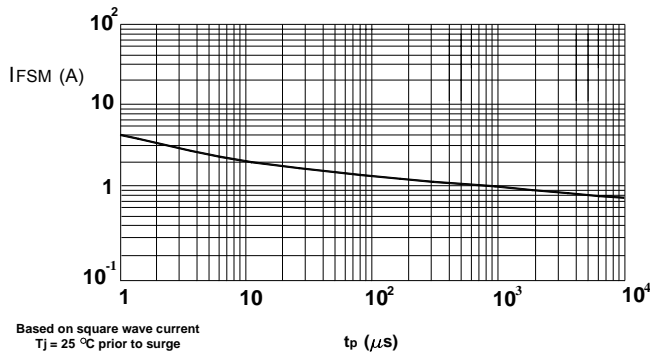
- (1) $V_R=75$ V; maximum values
- (2) $V_R=75$ V; typical values
- (3) $V_R=20$ V; typical values

Diode capacitance as a function of reverse voltage ; typical values



$f=1$ MHz; $T_j=25^{\circ}$ C

Maximum permissible non-repetitive peak forward current as a function of pulse duration



Based on square wave current
 $T_j = 25^{\circ}$ C prior to surge