

BAS32L

Silicon Epitaxial Planar Switching Diode

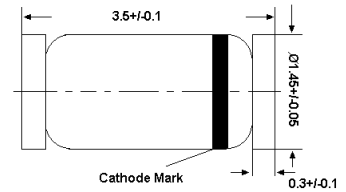
Features

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

Application

- High-speed switching
- Fast logic applications

LL-34



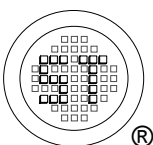
Glass case MiniMELF
Dimensions in mm

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

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}	0.5 1 4	A
		at $t = 1\text{ s}$	
		at $t = 1\text{ ms}$	
		at $t = 1\text{ }\mu\text{s}$	
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 $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	V_F	620	750	mV
at $I_F = 5\text{ mA}$	V_F	-	1000	mV
at $I_F = 100\text{ mA}$	V_F	-	930	mV
at $I_F = 100\text{ mA}, T_j = 100^\circ\text{C}$	V_F	-	-	-
Reverse Current	I_R	-	25	nA
at $V_R = 20\text{ V}$	I_R	-	5	μA
at $V_R = 75\text{ V}$	I_R	-	50	μA
at $V_R = 20\text{ V}, T_j = 150^\circ\text{C}$	I_R	-	100	μA
at $V_R = 75\text{ V}, T_j = 150^\circ\text{C}$	I_R	-	-	-
Reverse Breakdown Voltage	$V_{(BR)R}$	100	-	V
at $I_R = 100\text{ }\mu\text{A}$				
Diode Capacitance	C_d	-	2	pF
at $V_R = 0, f = 1\text{ MHz}$				
Reverse Recovery Time	t_{rr}	-	4	ns
at $I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}, V_R = 6\text{ V}, R_L = 100\text{ }\Omega$				

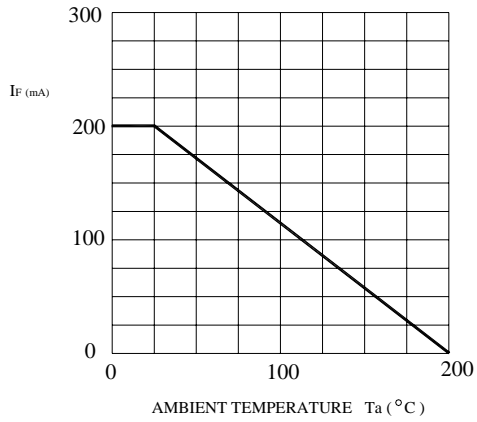


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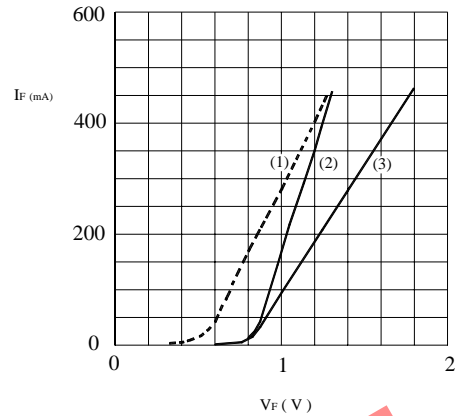


Dated : 15/06/2009

Maximum permissible continuous forward current as a function of ambient temperature

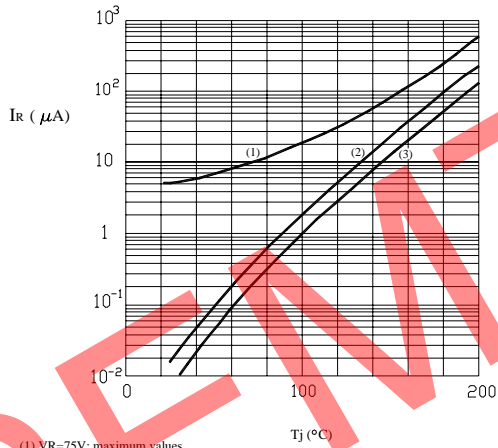


forward current as a function of forward voltage



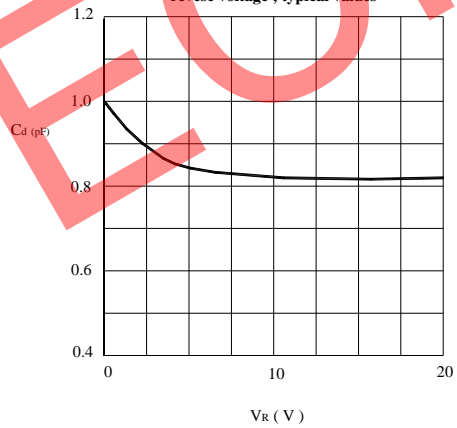
- (1) $T_j=175^{\circ}$ C ; typical values
- (2) $T_j=25^{\circ}$ C ; typical values
- (3) $T_j=25^{\circ}$ C ; maximum values

REVERSE CURRENT AS A FUNCTION OF JUNCTION TEMPERATURE



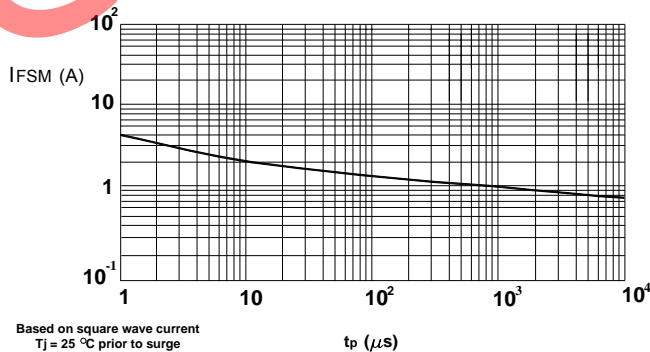
- (1) $V_R=75$ V; maximum values
- (2) $V_R=75$ V; typical values
- (3) $V_R=20$ V; typical values

Diode capacitance as a function of reverse voltage ; typical values

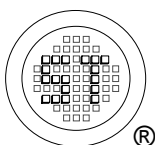


$f=1$ MHz; $T_j=25^{\circ}$ C

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



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