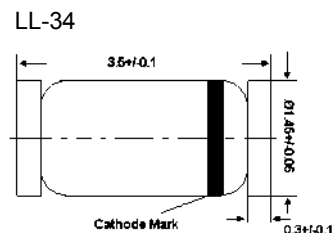


## LL-34 Plastic-Encapsulate Diodes

High Voltage Switching Diodes



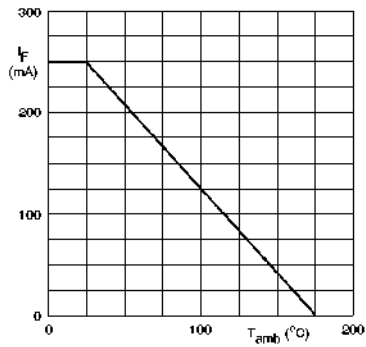
Glass case MiniMELF  
 Dimensions In mm

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	BAV101	120
		BAV102	200
		BAV103	250
Reverse Voltage	$V_R$	BAV101	100
		BAV102	150
		BAV103	200
Continuous Forward Current	$I_F$	250	mA
Repetitive Peak Forward Current	$I_{FRM}$	625	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	at $t = 1\text{ s}$	1
		at $t = 100\text{ }\mu\text{s}$	3
		at $t = 1\text{ }\mu\text{s}$	9
Total Power Dissipation	$P_{tot}$	400	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 175	$^\circ\text{C}$

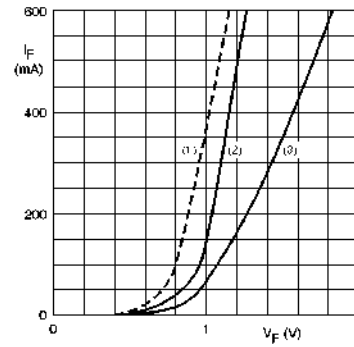
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	$V_F$	1	V
		1.25	
Reverse Current	$I_R$	BAV101	100 nA
		BAV102	100 nA
		BAV103	100 nA
		at $V_R = 100\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	100 $\mu\text{A}$
		at $V_R = 150\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	100 $\mu\text{A}$
		at $V_R = 200\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	100 $\mu\text{A}$
Diode Capacitance at $V_R = 0$ , $f = 1\text{ MHz}$	$C_d$	5	pF
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$ , $I_{rr} = 3\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	50	ns



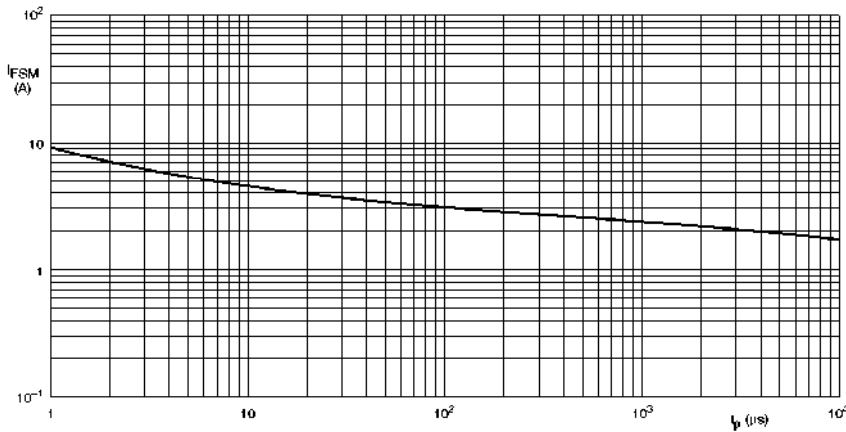
Device mounted on an FR4 printed-circuit board.

Maximum permissible continuous forward current as a function of ambient temperature.



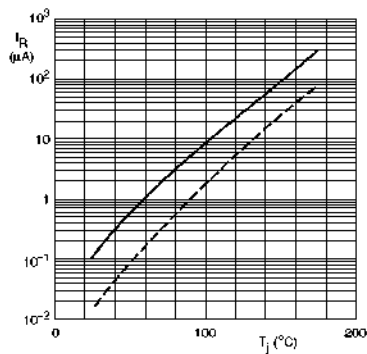
- (1)  $T_J = 160\text{ }^\circ\text{C}$ ; typical values
- (2)  $T_\theta = 25\text{ }^\circ\text{C}$ ; typical values
- (3)  $T_\theta = 25\text{ }^\circ\text{C}$ ; maximum values

Forward current as a function of forward voltage.



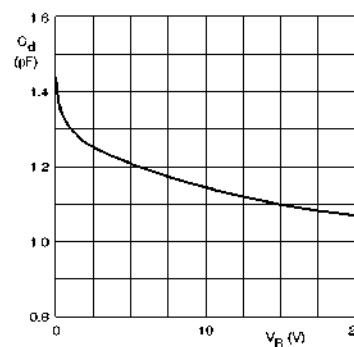
Based on square wave currents.  
 $T_\theta = 25\text{ }^\circ\text{C}$  prior to surge

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



$V_R = V_{Rmax}$ .  
 Solid line, maximum values.  
 Dotted line, typical values

Reverse current as a function of junction temperature.



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

Diode capacitance as a function of reverse voltage, typical values