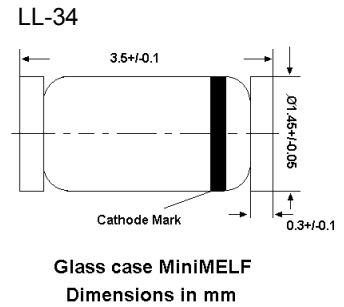


BAV101~BAV103

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

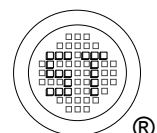


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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

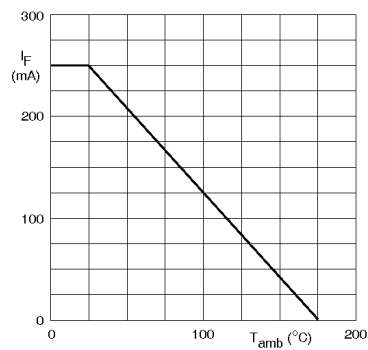
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	V_F	1 1.25	V
Reverse Current at $V_R = 100\text{ V}$ at $V_R = 150\text{ V}$ at $V_R = 200\text{ V}$ at $V_R = 100\text{ V}$, $T_j = 150^\circ\text{C}$ at $V_R = 150\text{ V}$, $T_j = 150^\circ\text{C}$ at $V_R = 200\text{ V}$, $T_j = 150^\circ\text{C}$	BAV101 BAV102 BAV103 I_R BAV101 BAV102 BAV103	100 100 100 100 100 100	nA nA nA μA μA μA
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



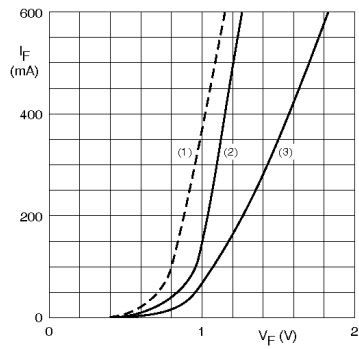
Dated : 15/06/2009

BAV101~BAV103



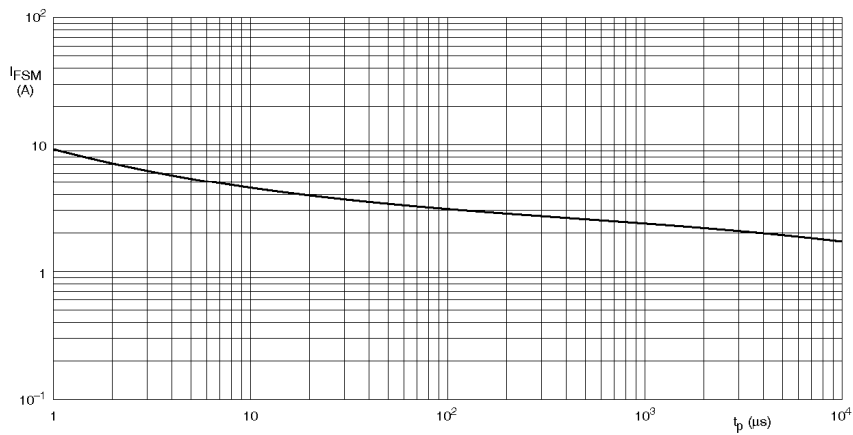
Device mounted on an FR4 printed-circuit board.

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



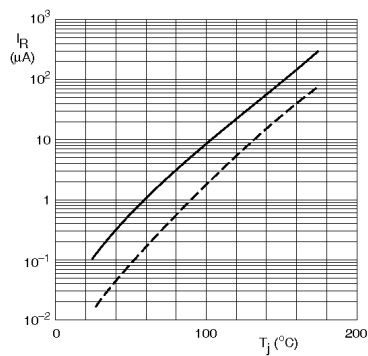
- (1) $T_J = 150$ °C; typical values.
- (2) $T_J = 25$ °C; typical values.
- (3) $T_J = 25$ °C; maximum values.

Forward current as a function of forward voltage.



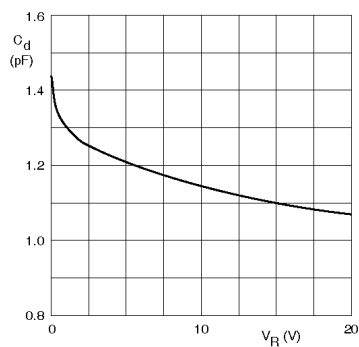
Based on square wave currents.
 $T_J = 25$ °C prior to surge.

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.



$f = 1$ MHz; $T_J = 25$ °C.

Diode capacitance as a function of reverse voltage; typical values.

