

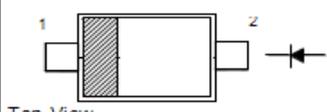
Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

	BAV101	BAV102	BAV103
MARKING	JX	T2	T3

PINNING[†]

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

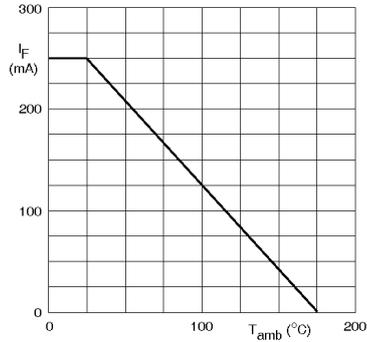
Simplified outline SOD-123 and symbol.

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

Parameter	Symbol	Value	Unit		
Repetitive Peak Reverse Voltage	V_{RRM}	BAV101 BAV102 BAV103	120 200 250	V	
Reverse Voltage		V_R	BAV101 BAV102 BAV103	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	I_{FSM}	at $t = 1\text{ s}$ at $t = 100\text{ }\mu\text{s}$ at $t = 1\text{ }\mu\text{s}$	1 3 9	A	
Total Power Dissipation		P_{tot}	400	mW	
Junction Temperature		T_j	175	°C	
Storage Temperature Range	T_{stg}	- 65 to + 175	°C		

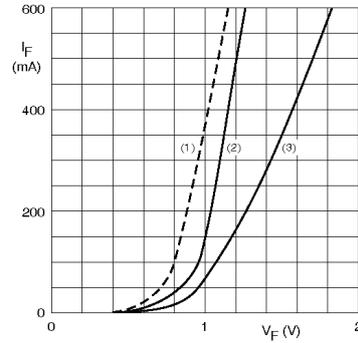
Characteristics at $T_a = 25\text{ °C}$

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 $V_R = 100\text{ V}$, $T_j = 150\text{ °C}$ at $V_R = 150\text{ V}$, $T_j = 150\text{ °C}$ at $V_R = 200\text{ V}$, $T_j = 150\text{ °C}$		I_R	BAV101 BAV102 BAV103 BAV101 BAV102 BAV103	100 100 100 100 100 100
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



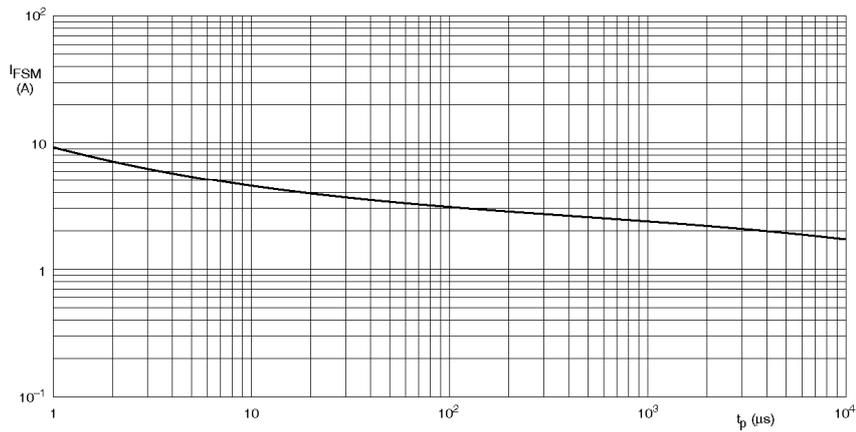
Device mounted on an FR4 printed-circuit board.

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



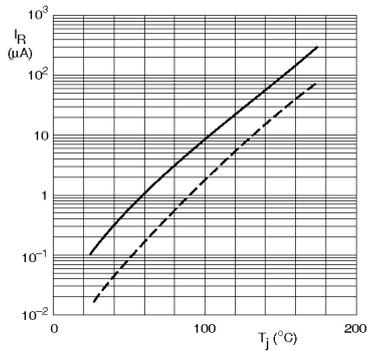
- (1) $T_J = 150$ °C; typical values.
- (2) $T_a = 25$ °C; typical values.
- (3) $T_a = 25$ °C; maximum values.

Forward current as a function of forward voltage.



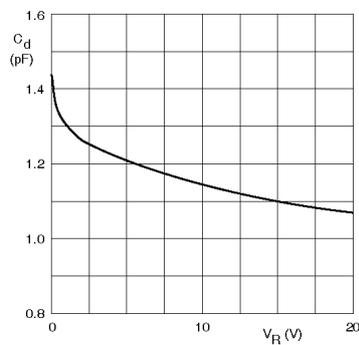
Based on square wave currents.
 $T_a = 25$ °C prior to surge.

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.