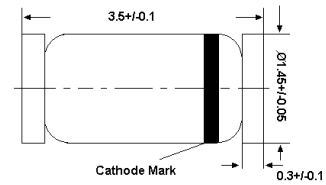


BAV101~BAV103

SILICON EPITAXIAL PLANAR DIODES

High Voltage General Purpose Diodes



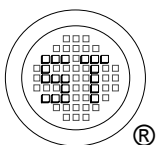
Glass case MiniMELF
Dimensions in mm

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

Parameter	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	BAV101	120	V	
	BAV102	200		
	BAV103	250		
Reverse Voltage	BAV101	100	V	
	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 $t = 100\text{ }\mu\text{s}$	3	A
		at $t = 1\text{ s}$	1	
Total Power Dissipation	P_{tot}	400	mW	
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	300	K/W	
Junction Temperature	T_j	175	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 65 to + 175	$^\circ\text{C}$	

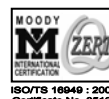
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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 at $V_R = 100\text{ V}$ at $V_R = 150\text{ V}$ at $V_R = 200\text{ V}$ at $V_R = 100\text{ V}, T_j = 150\text{ }^\circ\text{C}$ at $V_R = 150\text{ V}, T_j = 150\text{ }^\circ\text{C}$ at $V_R = 200\text{ V}, T_j = 150\text{ }^\circ\text{C}$	I_R	BAV101	100	nA
		BAV102	100	nA
		BAV103	100	nA
		BAV101	100	μA
		BAV102	100	μA
		BAV103	100	μA
Diode Capacitance at $f = 1\text{ MHz}, V_R = 0$	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	

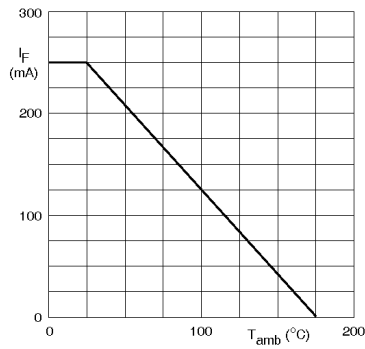


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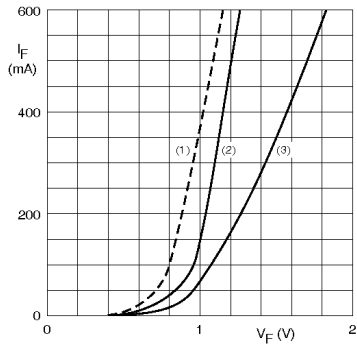


BAV101~BAV103



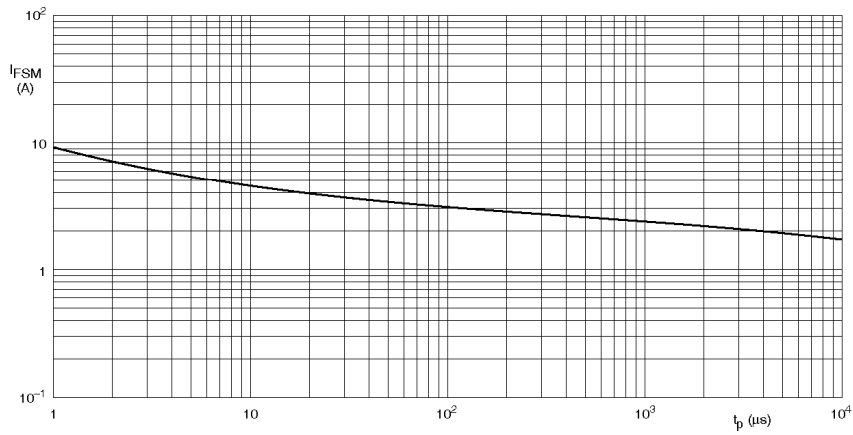
Device mounted on an FR4 printed-circuit board.

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



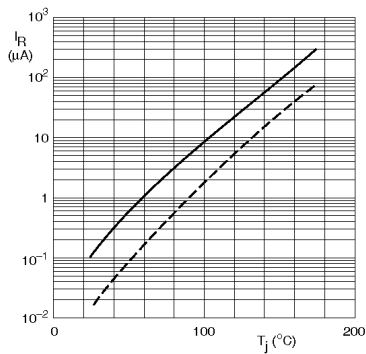
- (1) $T_j = 150\text{ }^\circ\text{C}$; typical values.
- (2) $T_a = 25\text{ }^\circ\text{C}$; typical values.
- (3) $T_a = 25\text{ }^\circ\text{C}$; maximum values.

Forward current as a function of forward voltage.



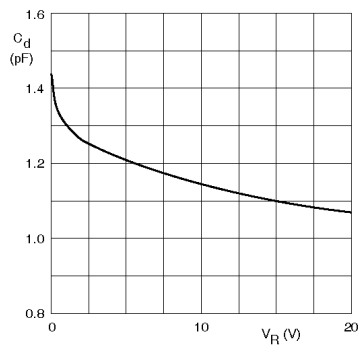
Based on square wave currents.
 $T_a = 25\text{ }^\circ\text{C}$ prior to surge.

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



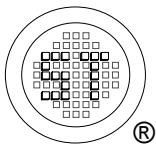
$V_R = V_{Rmax}$
Solid line; maximum values.
Dotted line; typical values.

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.



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