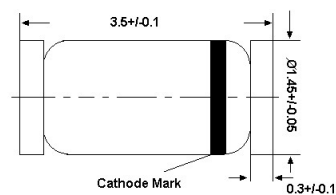


BAV101~BAV103

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

LL-34



Glass case MiniMELF
Dimensions in mm

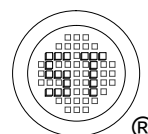
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	BAV101 BAV102 BAV103	120 200 250	V
Reverse Voltage	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	at $t = 1$ s at $t = 100 \mu\text{s}$ at $t = 1 \mu\text{s}$	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	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient ¹⁾	$R_{\theta JA}$	375	$^\circ\text{C/W}$

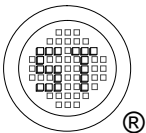
¹⁾ Valid provided that electrodes are kept at ambient temperature.



BAV101~BAV103

Characteristics at T_a = 25°C

Parameter	Symbol	Max.	Unit
Forward Voltage at I _F = 100 mA at I _F = 200 mA	V _F	1 1.25	V
Reverse Current at V _R = 100 V at V _R = 150 V at V _R = 200 V at V _R = 100 V, T _j = 150 °C at V _R = 150 V, T _j = 150 °C at V _R = 200 V, T _j = 150 °C	I _R	100 100 100 100 100 100	nA nA nA μA μA μA
Diode Capacitance at V _R = 0, f = 1 MHz	C _d	5	pF
Reverse Recovery Time at I _F = I _R = 30 mA, I _{rr} = 3 mA, R _L = 100 Ω	t _{rr}	50	ns



Electrical Characteristics Curves

Fig 1. Derating Curve

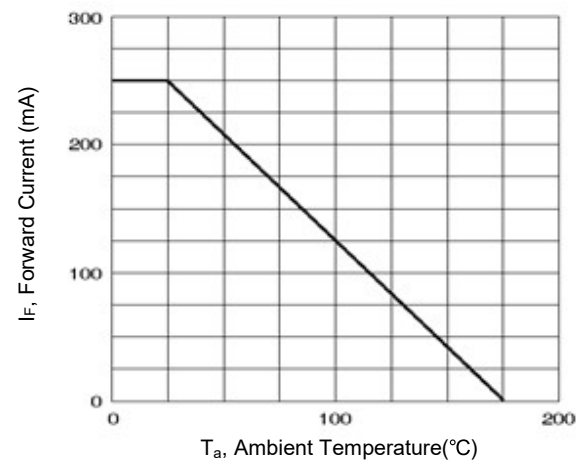


Fig 2. Forward Characteristics

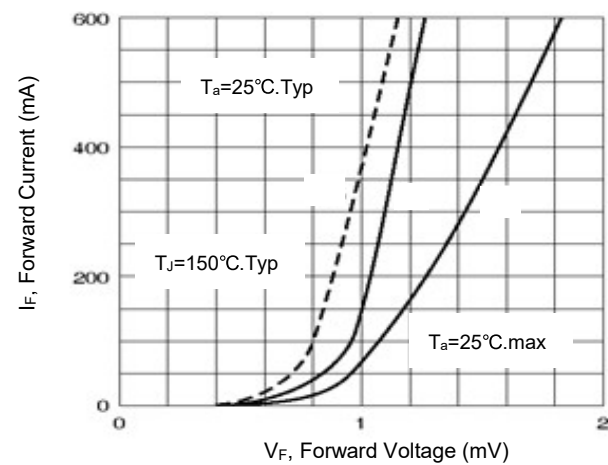


Fig 3. C_d vs. V_R

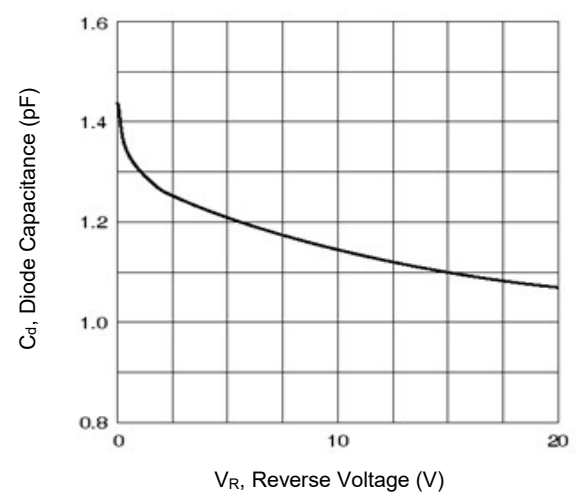
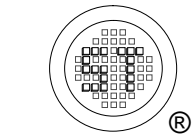
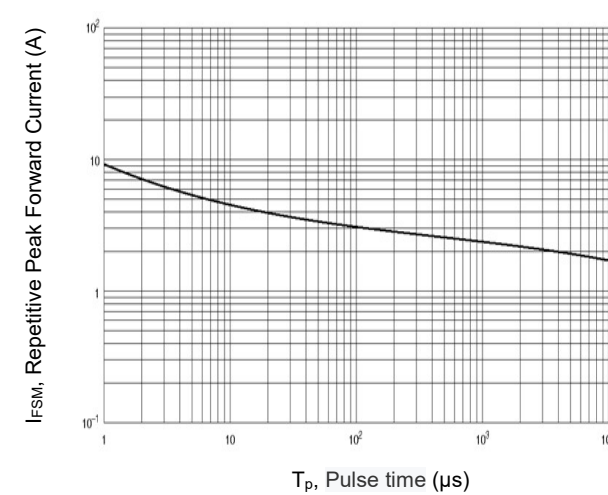
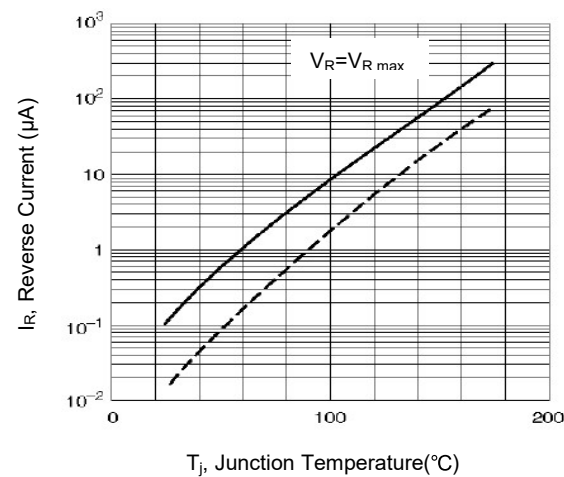


Fig 4. I_{FSM} vs. T_p



Electrical Characteristics Curves

Fig 5. Reverse Characteristics



Disclaimer: Our company reserve the right to make modifications, enhancements, improvements, corrections or other changes to improve product design, functions and reliability, anytime without notice. Semtech Electronics Limited makes no warranties, representations or warranties regarding the suitability of its products for any particular purpose, and does not accept any liability arising from the application or use of any product or circuit such as: Apply to medical, military, aircraft, space or life support equipment and expressly waive any and all liability, including but not limited to special, consequential or collateral damage.

