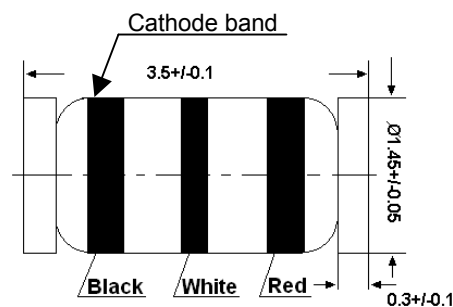


SILICON EPITAXIAL PLANAR DIODES

LL-34

Features

- Small – signal diodes
- For general purpose

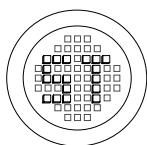


Glass case MiniMELF
Dimensions in mm

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

	Symbol	Value	Unit
Reverse Voltage			
BAV100	V_R	50	V
BAV101		100	
BAV102		150	
BAV103		200	
Repetitive Peak Reverse Voltage			
BAV100	V_{RRM}	60	V
BAV101		120	
BAV102		200	
BAV103		250	
Forward DC Current at $T_{amb} = 25^\circ\text{C}$	I_F	250 ¹⁾	mA
Rectified Current (Average) Half Wave Rectification with Resist. Load at $T_{amb} = 25^\circ\text{C}$ and $f \geq 50\text{Hz}$	$I_{F(AV)}$	200 ¹⁾	mA
Repetitive Peak Forward Current at $T_{amb} = 25^\circ\text{C}$, $f \geq 50\text{Hz}$ and $\theta = 180^\circ$	I_{FRM}	625 ¹⁾	mA
Surge Forward Current at $t=1\text{s}$, $T_j = 25^\circ\text{C}$ at $t=100\mu\text{s}$, $T_j = 25^\circ\text{C}$ at $t=1\mu\text{s}$, $T_j = 25^\circ\text{C}$	I_{FSM}	1 3 9	A
Power Dissipation	P_{tot}	400 ¹⁾	mW
Thermal Resistance Junction to Ambient	R_{thJA}	375	$^\circ\text{C/W}$
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_S	-65 to +175	$^\circ\text{C}$

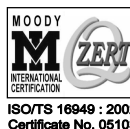
¹⁾ Valid provided that electrodes are kept at ambient temperature.



®

SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)

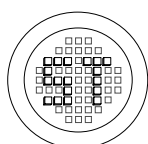


Dated : 02/04/2005

BAV100~BAV103

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

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 100\text{mA}$ at $I_F = 200\text{mA}$	V_F	- -	- -	1.0 1.25	V
Leakage Current at $V_R = 50\text{V}$ BAV100 at $V_R = 50\text{V}$, $T_j = 100^\circ\text{C}$ BAV100 at $V_R = 100\text{V}$ BAV101 at $V_R = 100\text{V}$, $T_j = 100^\circ\text{C}$ BAV101 at $V_R = 150\text{V}$ BAV102 at $V_R = 150\text{V}$, $T_j = 100^\circ\text{C}$ BAV102 at $V_R = 200\text{V}$ BAV103 at $V_R = 200\text{V}$, $T_j = 100^\circ\text{C}$ BAV103	I_R	- - - - - - - -	- - - - - - - -	100 15 100 15 100 15 100 15	nA μA nA μA nA μA nA μA
Dynamic Forward Resistance $I_F = 10\text{mA}$	r_f	-	5	-	Ω
Capacitance at $V_R = 0$, $f = 1\text{MHz}$	C_{tot}	-	1.5	-	pF
Reverse Recovery Time from $I_F = 30\text{mA}$ to $I_R = 30\text{mA}$, $I_{rr} = 3\text{mA}$, $R_L = 100\Omega$	t_{rr}	-	-	50	ns



®

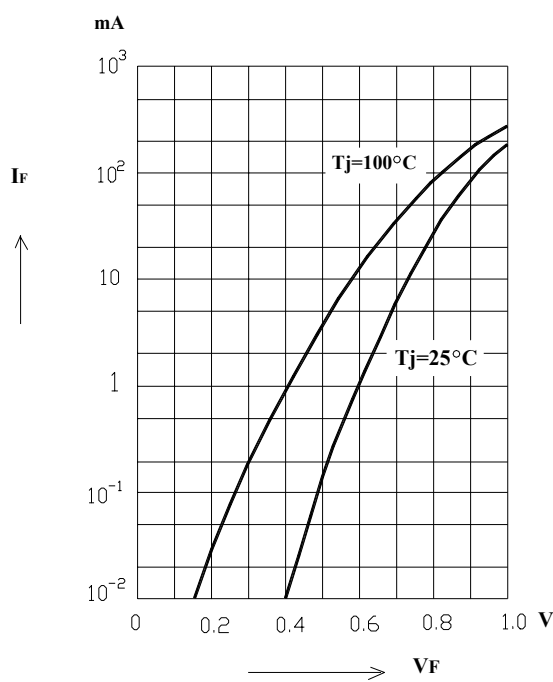
SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



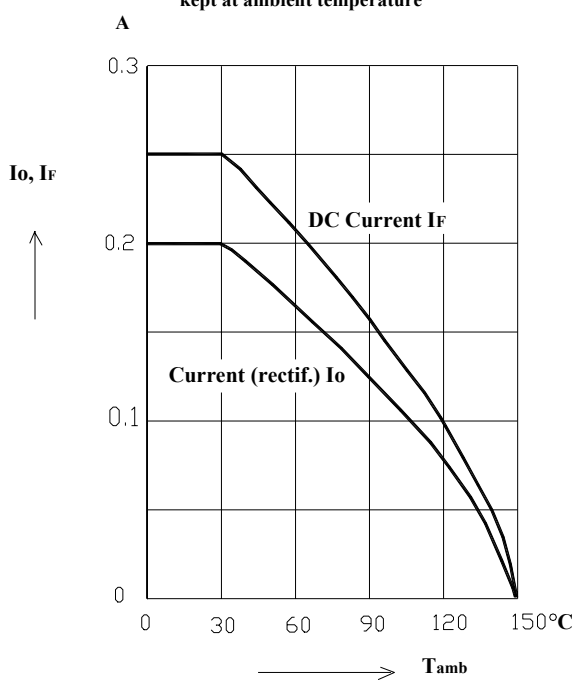
Dated : 02/04/2005

Forward characteristics

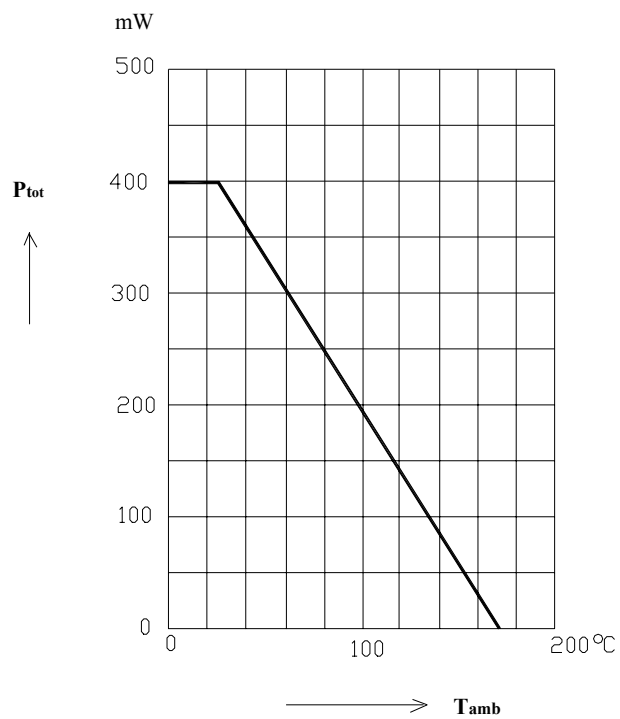


Admissible forward current versus ambient temperature

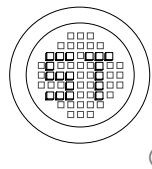
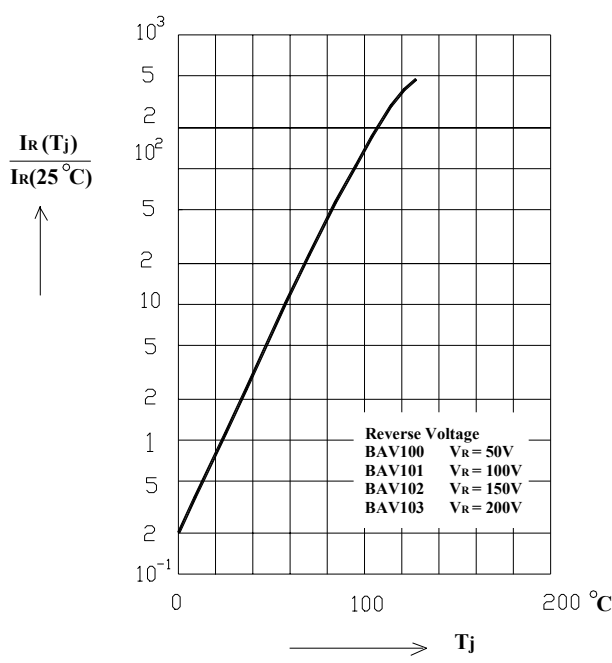
Valid provided that electrodes are kept at ambient temperature



Admissible power dissipation versus ambient temperature



Leakage current versus junction temperature

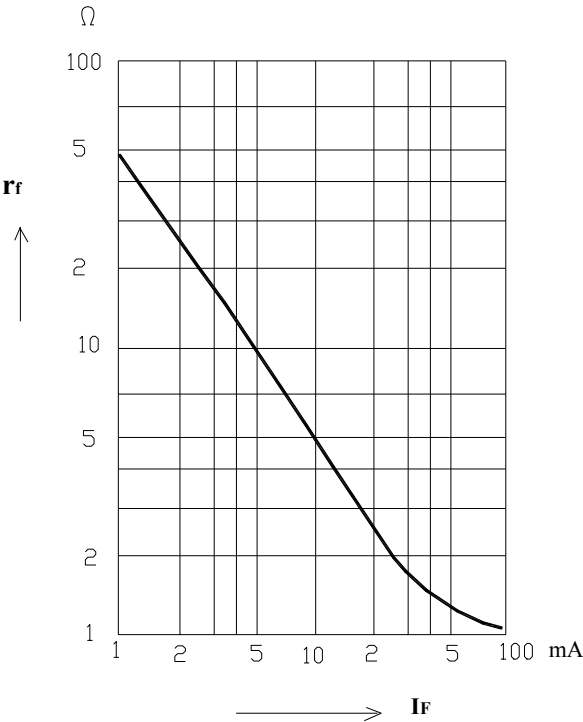


SEMTECH ELECTRONICS LTD.
(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

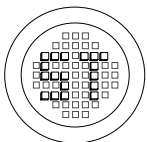
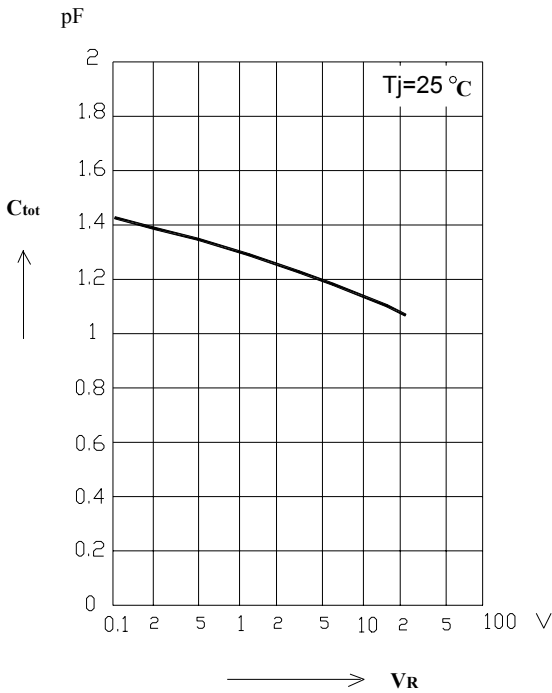


Dated : 02/04/2005

Dynamic forward resistance
versus forward current



Capacitance versus
reverse voltage



SEMTECH ELECTRONICS LTD.
(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dated : 02/04/2005