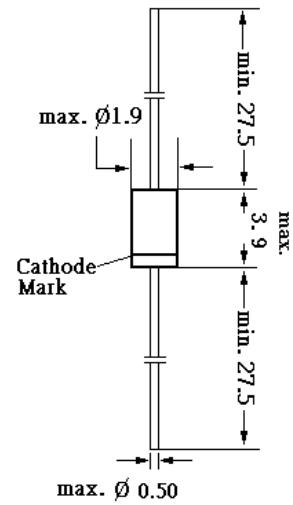


# BAV19, BAV20, BAV21

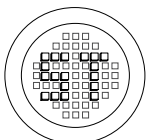
## HIGH VOLTAGE GENERAL PURPOSE DIODES



Glass case JEDEC DO-35  
Dimensions in mm

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

Parameter	Symbol	Value	Unit	
Working Inverse Voltage	BAV19	$W_{IV}$	100	V
	BAV20	$W_{IV}$	150	V
	BAV21	$W_{IV}$	200	V
Average Rectified Current	$I_{F(AV)}$	200	mA	
DC Forward Current	$I_{FM}$	500	mA	
Recurrent Peak Forward Current	$I_{FRM}$	600	mA	
Non-repetitive Peak Forward Surge Current				
Pulse width = 1.0 second	$I_{FSM}$	1.0	A	
Pulse width = 1.0 microsecond	$I_{FSM}$	4.0	A	
Total Device Dissipation Derate above 25 °C	$P_{tot}$	500	mW	
		3.33	mW/°C	
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	300	°C/W	
Junction Temperature	$T_j$	175	°C	
Storage Temperature Range	$T_s$	-65 to +200	°C	



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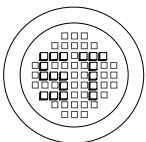
**РАДИОТЕХ**

Тел.: (495) 795-0805  
Факс: (495) 234-1603  
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Веб: www.rct.ru

# BAV19, BAV20, BAV21

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

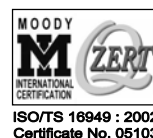
Parameter		Symbol	Min.	Max.	Unit
Breakdown Voltage at $I_R = 100\mu\text{A}$	BAV19	$V_R$	120	-	V
	BAV20	$V_R$	200	-	V
	BAV21	$V_R$	250	-	V
Reverse Current at $V_R = 100\text{V}$	BAV19	$I_R$	-	100	nA
		$I_R$	-	100	$\mu\text{A}$
	BAV20 at $V_R = 150\text{V}$	$I_R$	-	100	nA
		$I_R$	-	100	$\mu\text{A}$
	BAV21 at $V_R = 200\text{V}$	$I_R$	-	100	nA
		$I_R$	-	100	$\mu\text{A}$
Forward Voltage at $I_F = 100\text{mA}$		$V_F$	-	1.0	V
		$V_F$	-	1.25	V
Diode Capacitance at $f = 1\text{MHz}$		$C_O$	-	5.0	pF
Reverse Recovery Time at $I_F = I_R = 30\text{mA}$ , $I_{RR} = 3.0\text{mA}$ , $R_L = 100\Omega$		$t_{rr}$	-	50	ns



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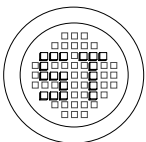
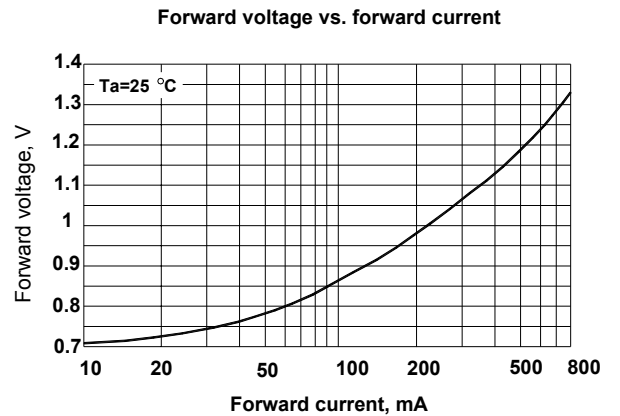
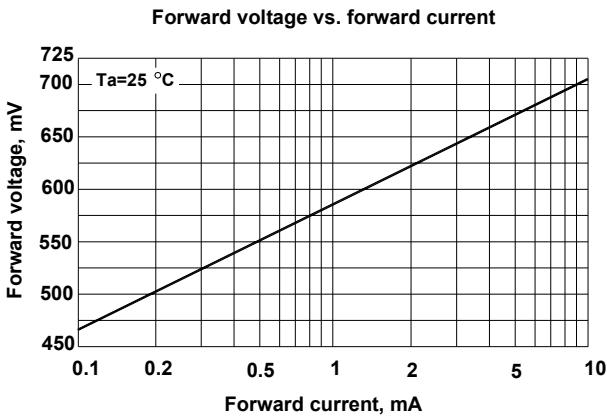
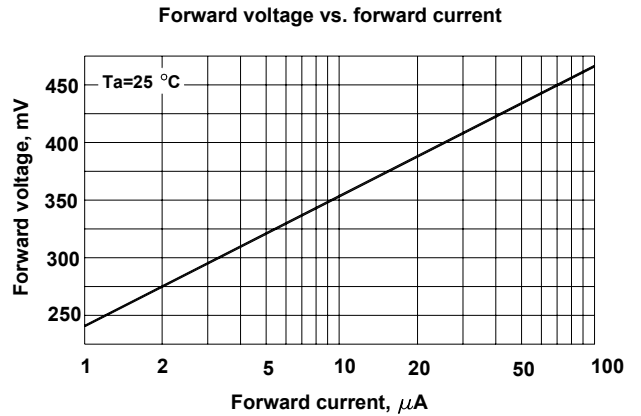
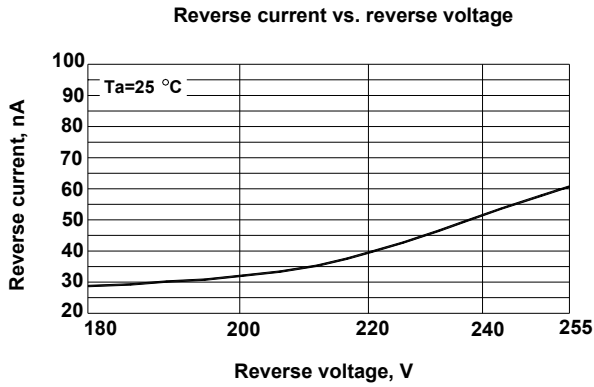
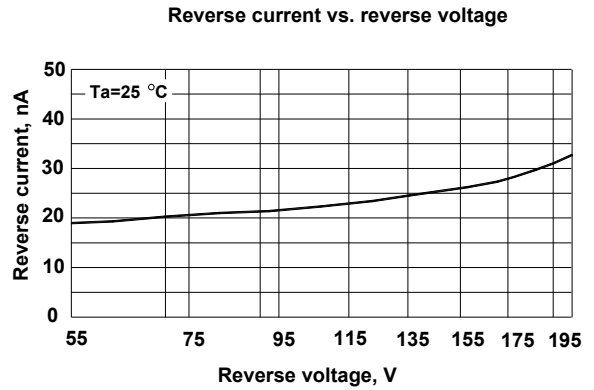
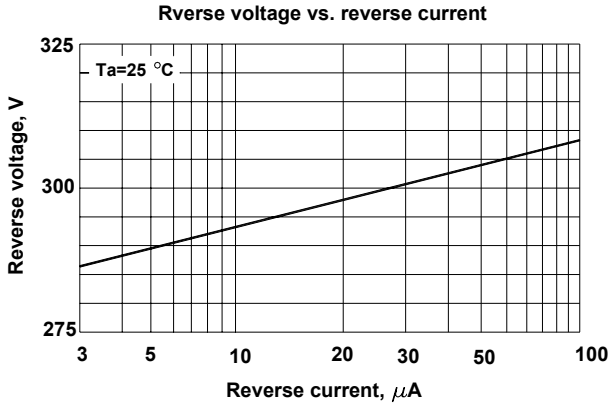
## SEMTECH ELECTRONICS LTD.

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



Dated : 18/11/2005

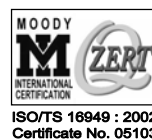
# BAV19, BAV20, BAV21



**SEMTECH ELECTRONICS LTD.**

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

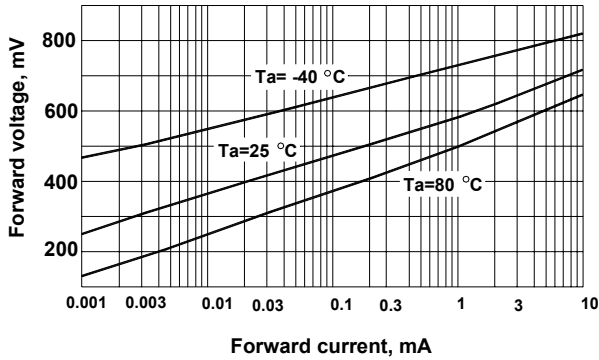
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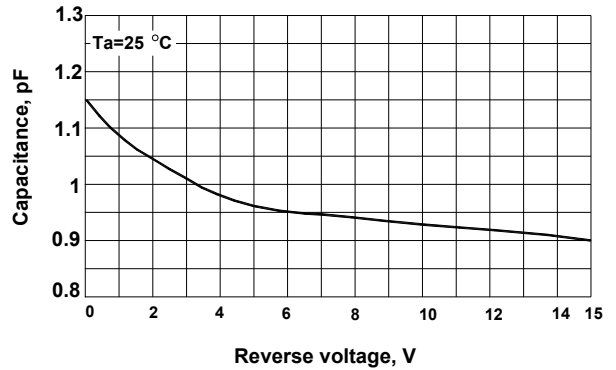
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# BAV19, BAV20, BAV21

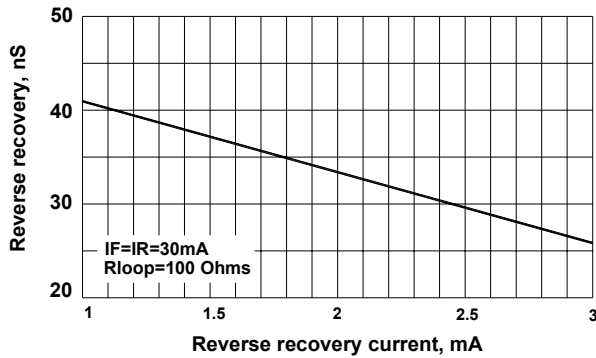
Forward voltage vs. ambient temperature



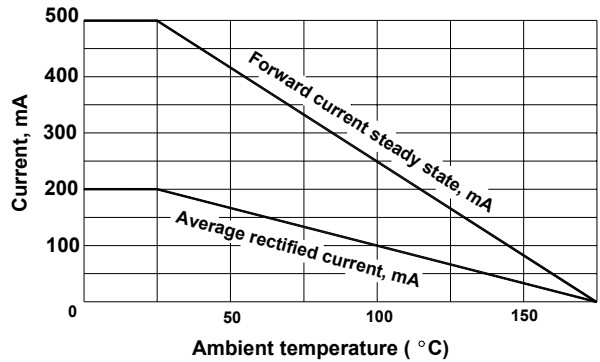
Capacitance vs. reverse voltage



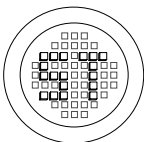
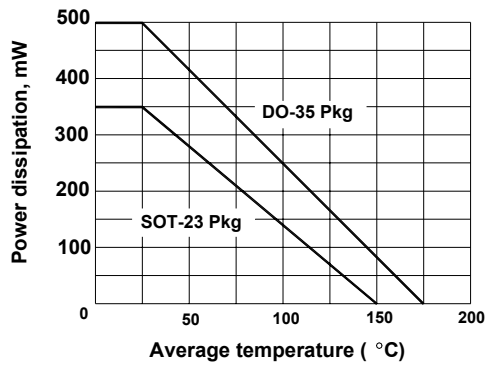
Reverse recovery time vs. reverse recovery current



Average rectified current & forward current vs. ambient temperature

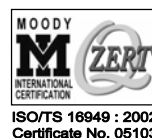


Power derating curve



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