

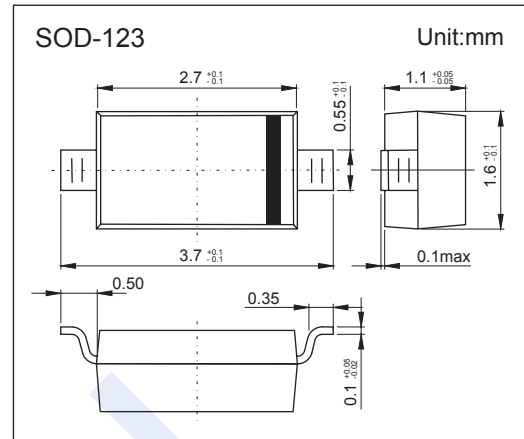
Switching Diodes

BAV19W ~ BAV21W

(KAV19W ~ KAV21W)

■ Features

- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.
- Small Signal Diodes



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	BAV19W	BAV20W	BAV21W	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	120	200	250	V
Continuous Reverse Voltage	V _R	100	150	200	
Forward DC Current	I _F	250			mA
Averaged Forward Current	I _{FAV}	200			
Repetitive Peak Forward Current @ f>50Hz,	I _{FRM}	625			
Surge Forward Current @ t<1s	I _{FSM}	1			A
Power Dissipation	P _D	410			mW
Thermal Resistance Junction to Ambient	R _{thJA}	375			°C/W
Junction Temperature	T _j	150			°C
Storage Temperature	T _{stg}	-55 to 150			

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

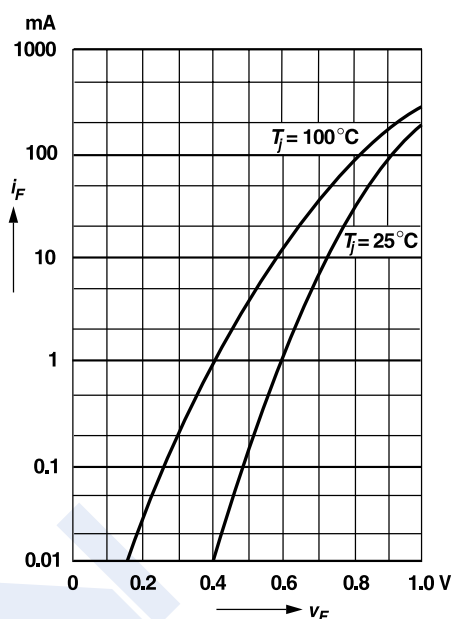
Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	BAV19W	$V_{(BR)}$	$I_R = 1\text{ mA}$	120			V
	BAV20W			200			
	BAV21W			250			
Forward voltage		V_F	$I_F = 100\text{ mA}$			1	
			$I_F = 200\text{ mA}$			1.25	
Reverse voltage leakage current	BAV19W	I_R	$V_R = 100\text{ V}$			100	nA
	BAV19W		$V_R = 100\text{ V}, T_J = 100^\circ\text{C}$			15	μA
	BAV20W		$V_R = 150\text{ V}$			100	nA
	BAV20W		$V_R = 150\text{ V}, T_J = 100^\circ\text{C}$			15	μA
	BAV21W		$V_R = 200\text{ V}$			100	nA
	BAV21W		$V_R = 200\text{ V}, T_J = 100^\circ\text{C}$			15	μA
Dynamic Forward Resistance		r_f	$I_F = 10\text{ mA}$		5		Ω
Reverse Recovery Time		t_{rr}	$I_F = I_R = 30\text{ mA}, I_{rr} = 3\text{ mA}, R_L = 100\text{ m}\Omega$			50	ns
Diode capacitance		C_D	$V_R = 0\text{ V}, f = 1\text{ MHz}$		1.5		pF

■ Marking

NO.	BAV19W	BAV20W	BAV21W
Marking	A8	T2	T3

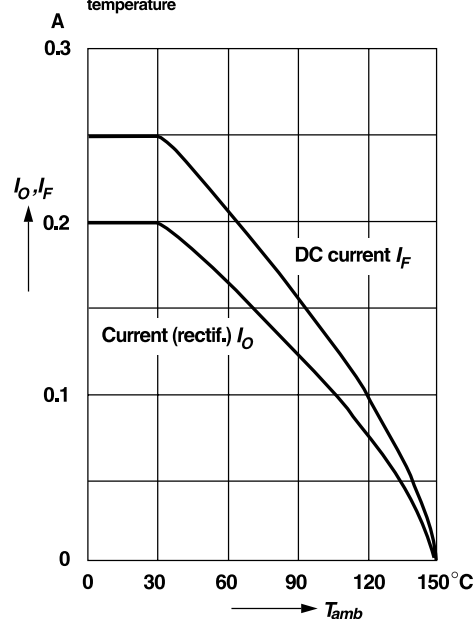
■ Typical Characteristics

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature



Switching Diodes

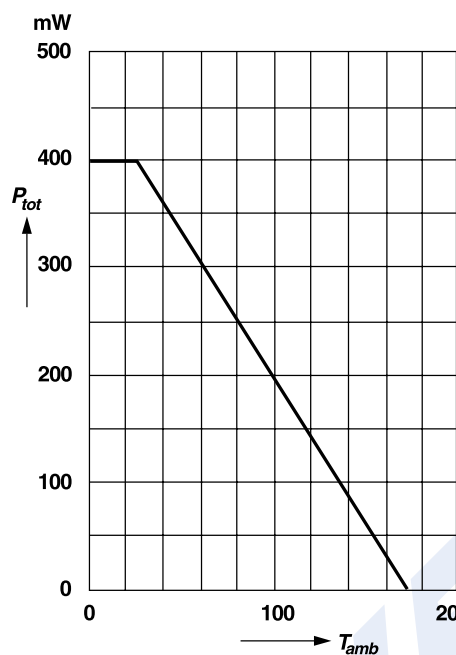
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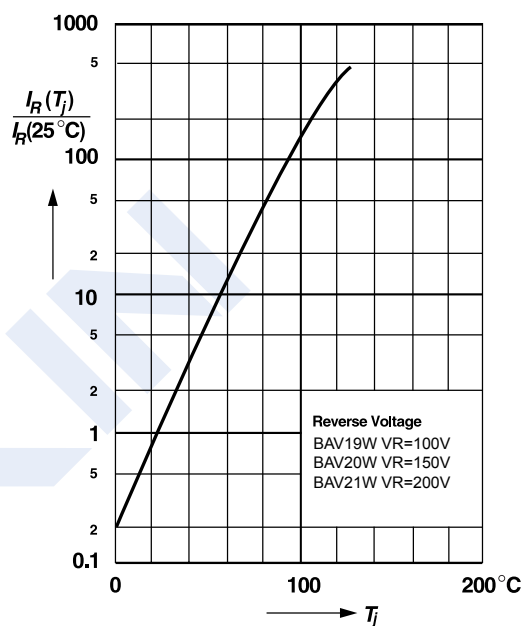
■ Typical Characteristics

**Admissible power dissipation
versus ambient temperature**

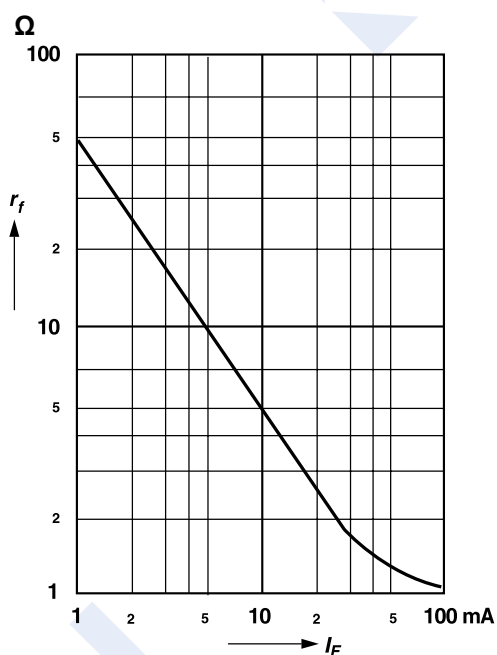
Valid provided that electrodes are kept at ambient temperature



**Leakage current
versus junction temperature**



**Dynamic forward resistance
versus forward current**



**Capacitance
versus reverse voltage**

