

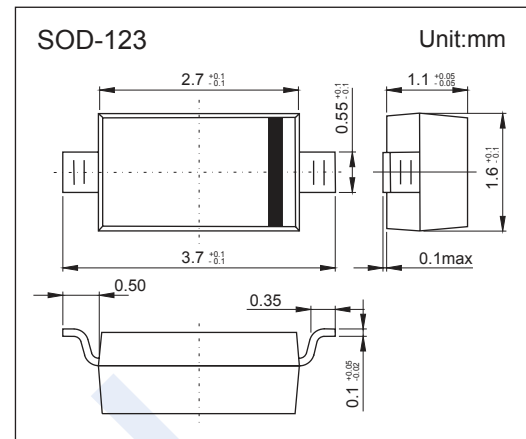
Switching Diodes

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			

Switching Diodes

BAV19W ~ BAV21W

(KAV19W ~ KAV21W)

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

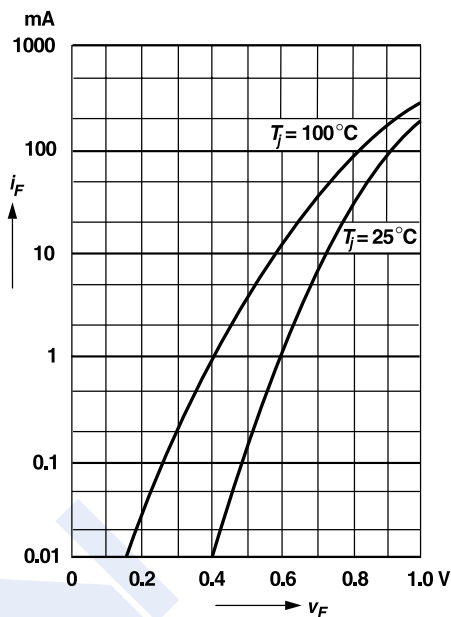
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	BAV19W	$I_R = 1\text{ mA}$	120			V
	BAV20W		200			
	BAV21W		250			
Forward voltage	V_F	$I_F = 100\text{ mA}$			1	
		$I_F = 200\text{ mA}$			1.25	
Reverse voltage leakage current	BAV19W	I_R	$V_R = 100\text{ V}$		100	nA
	BAV19W		$V_R = 100\text{ V}, T_J = 100^\circ\text{C}$		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

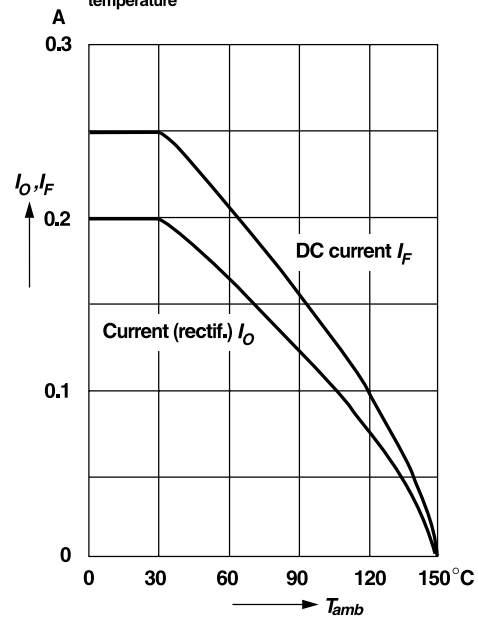
■ Typical Characteristics

Forward characteristics



Admissible forward current versus ambient temperature

Valid provided that electrodes are kept at ambient temperature

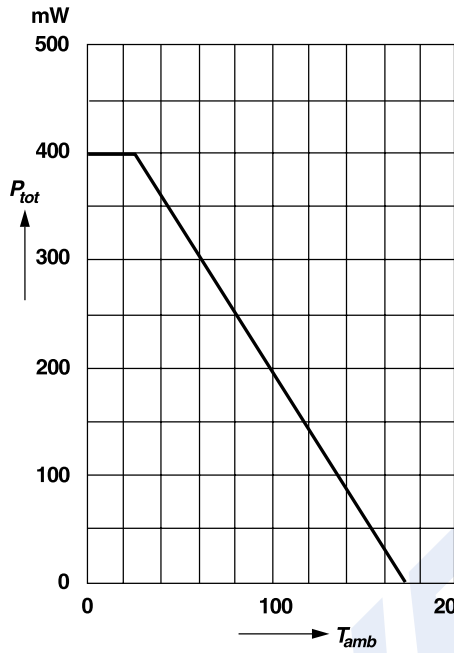


Switching Diodes BAV19W ~ BAV21W (KAV19W ~ KAV21W)

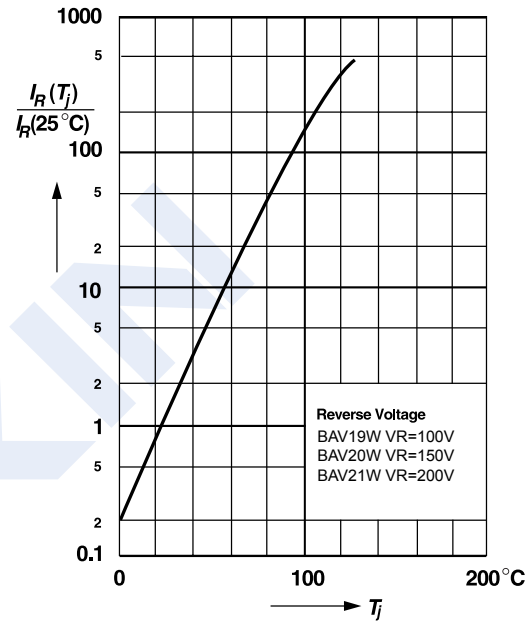
■ Typical Characteristics

Admissible power dissipation versus ambient temperature

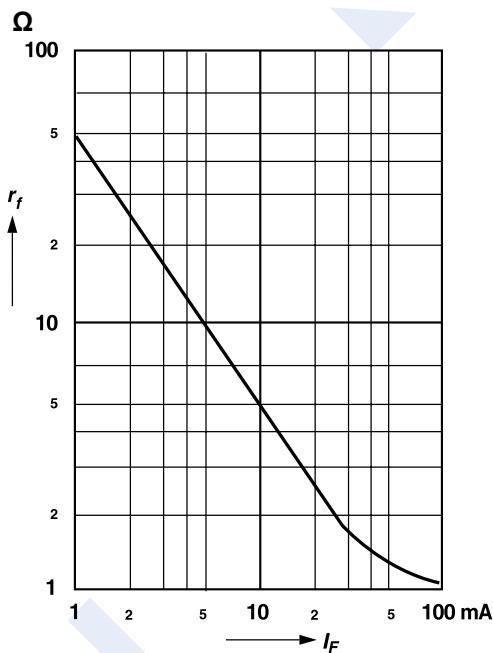
Valid provided that electrodes are kept at ambient temperature



Leakage current versus junction temperature



Dynamic forward resistance versus forward current



Capacitance versus reverse voltage

