

## BAV19 ~ BAV21

### FEATURES :

- switching speed: max. 50 ns
- For general purpose
- This diode is also available in other case styles including: the MiniMELF case with the type designation BAV101 to BAV103, the SOT-23 case with the type designation BAS19 to BAS21

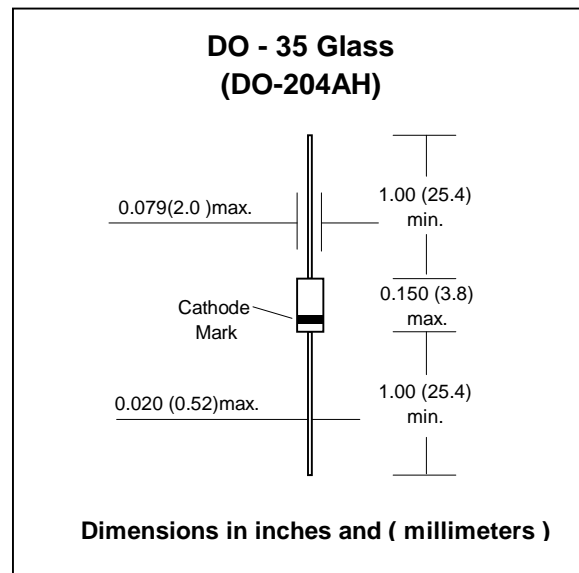
\* Pb / RoHS Free

### MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g

## SWITCHING DIODES



### Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	BAV19	120	V
	BAV20	200	
	BAV21	250	
Maximum Continuous Reverse Voltage	BAV19	100	V
	BAV20	150	
	BAV21	200	
Maximum Rectified Current (Average) Half Wave Rectification with Resist. Load	$I_{F(AV)}$	200	mA
Maximum Continuous Current <sup>(1)</sup>	$I_F$	250	mA
Maximum Power Dissipation <sup>(1)</sup>	$P_D$	500	mW
Maximum Repetitive Peak Forward Current <sup>(1)</sup>	$I_{FRM}$	625	mA
Maximum Non-repetitive Peak Forward Current at t = 1s	$I_{FSM}$	1.0	A
Maximum Junction Temperature <sup>(1)</sup>	$T_J$	175	°C
Storage Temperature Range <sup>(1)</sup>	$T_S$	-65 to + 175	°C

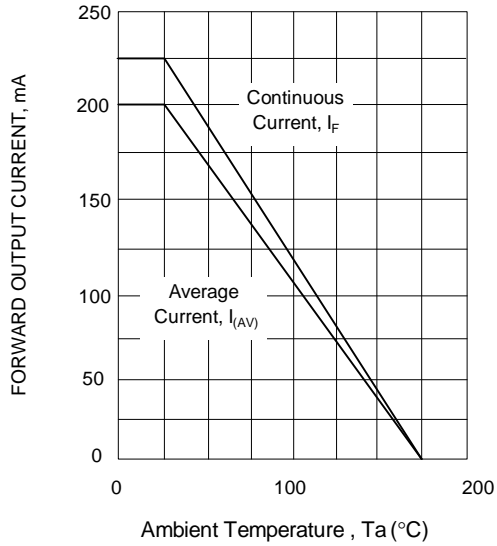
**Note :** (1) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.

### Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

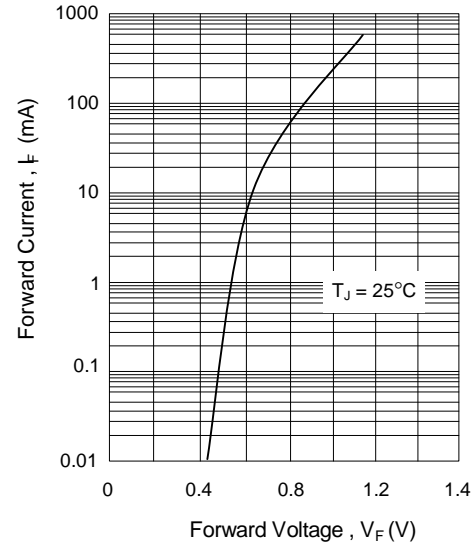
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	$I_R$	$V_R = 100\text{ V}$	-	-	100	nA
		$V_R = 150\text{ V}$	-	-	100	
		$V_R = 200\text{ V}$	-	-	100	
Forward Voltage	$V_F$	$I_F = 100\text{ mA}$	-	-	1.0	V
Diode Capacitance	$C_d$	$f = 1\text{ MHz}; V_R = 0$	-	1.5	-	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 30\text{ mA}, I_R = 30\text{ mA}$ $I_{RR} = 3\text{ mA}, R_L = 100\ \Omega$	-	-	50	ns

## RATING AND CHARACTERISTIC CURVES ( BAV19 ~ BAV21 )

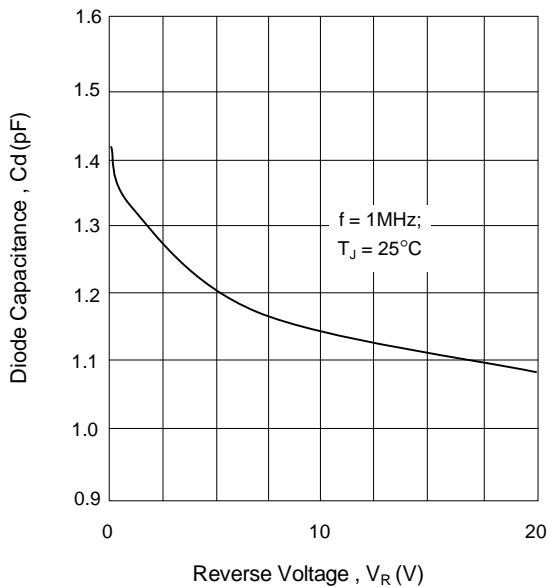
**FIG. 1 ADMISSIBLE FORWARD CURRENT VERSUS AMBIENT TEMPERATURE**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



**FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE**



**FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE**

