

## Small Signal Switching Diodes

REVERSE VOLTAGE : 20-200 V  
CURRENT: 250 mA

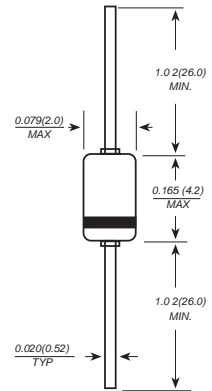
### FEATURES

- Silicon epitaxial planar diode
- High speed switching diode
- 500 mW power dissipation

### MECHANICAL DATA

- Case: DO-35, glass case
- Polarity: Color band denotes cathode

DO-35(GLASS)



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

		BAV17	BAV18	BAV19	BAV20	BAV21	UNITS
Reverse voltage	$V_R$	20	50	100	150	200	V
Peak reverse voltage	$V_{RM}$	25	60	120	200	250	V
Average forward rectified current Half wave rectification with resist.load @ $T_A=25^\circ\text{C}$ and $f \geq 50\text{Hz}$	$I_{(AV)}$	250 <sup>1)</sup>					mA
Forward surge current @ $t < 1\text{s}$ and $T_J=25^\circ\text{C}$	$I_{FSM}$	1.0					A
Power dissipation @ $T_A=25^\circ\text{C}$	$P_{tot}$	500 <sup>1)</sup>					mW
Thermal resistance junction to ambient	$R_{\theta JA}$	350					K/W
Junction temperature	$T_J$	175					°C
Storage temperature range	$T_{STG}$	-55 --- +175					°C

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

## Electrical Specification ( $T_A=25^\circ\text{C}$ unless otherwise specified)

		MIN	TYP	MAX	UNITS
Forward voltage @ $I_F=100\text{mA}$	$V_F$	-	-	1.0	V
Leakage current @ $T_J=25^\circ\text{C}$	$I_R$	-	-	100	nA
at reverse voltage @ $T_J=100^\circ\text{C}$		-	-	15	$\mu\text{A}$
Capacitance @ $V_F=V_R=0\text{V}$ $f=1\text{MHz}$	$C_J$	-	1.5	-	pF
Reverse recovery time from $I_F=30\text{mA}$ to $I_R=30\text{mA}$ from $I_{RR}=3\text{mA}$ , $R_L=100\Omega$ .	$t_{rr}$	-	-	50	ns

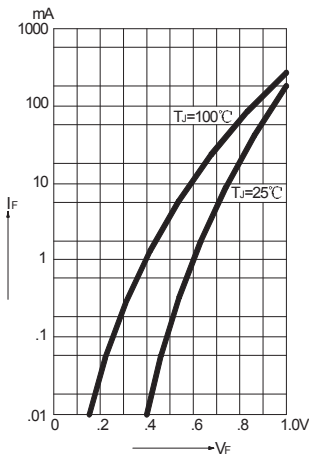
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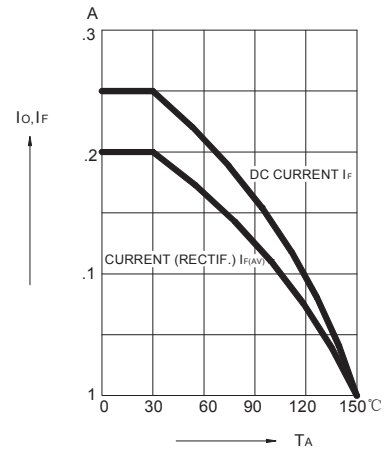
# RATINGS AND CHARACTERISTIC CURVES

## Typical Characteristics

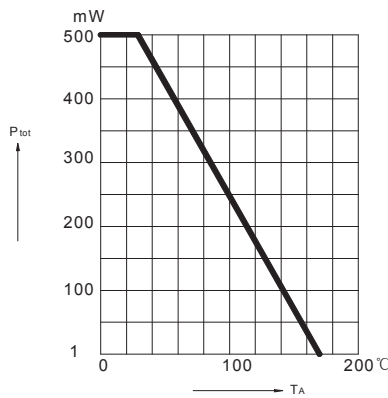
**FIG.1 – FORWARD CHARACTERISTICS**



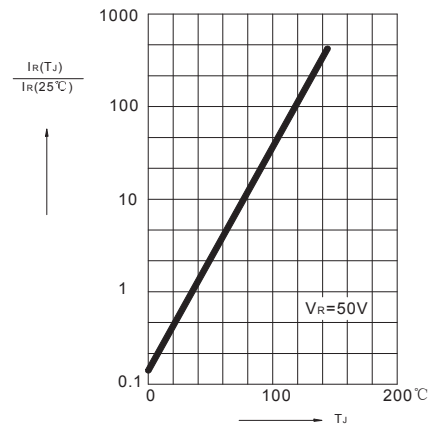
**FIG.2 – ADMISSIBLE FORWARD CURRENT VERSUS AMBIENT TEMPERATURE**



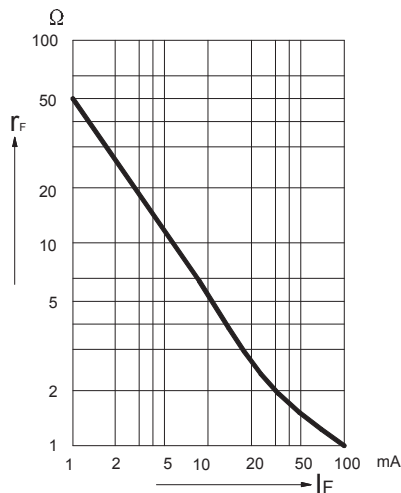
**FIG.3 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE**



**FIG.4 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE**



**FIG.5 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT**



**FIG.6 – CAPACITANCE VERSUS REVERSE VOLTAGE**

