

Small Signal Switching Diodes

REVERSE VOLTAGE : 20-200 V
CURRENT: 250 mA

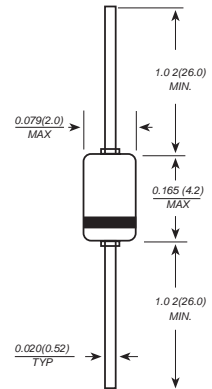
FEATURES

- 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 ¹⁾					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 ¹⁾					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	μA
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

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

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RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

FIG.1 – FORWARD CHARACTERISTICS

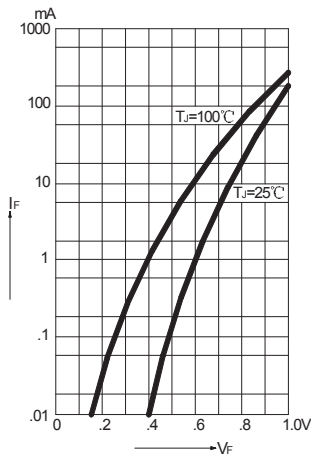


FIG.2 – ADMISSIBLE FORWARD CURRENT VERSUS AMBIENT TEMPERATURE

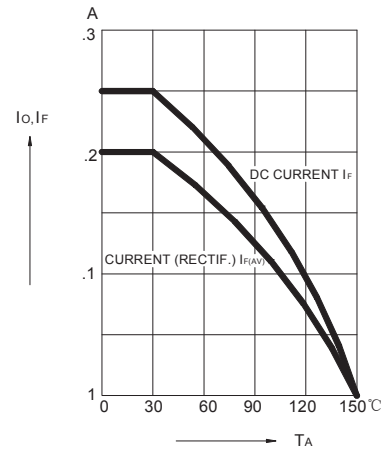


FIG.3 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE

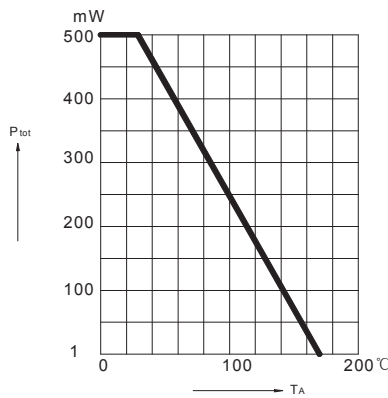


FIG.4 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

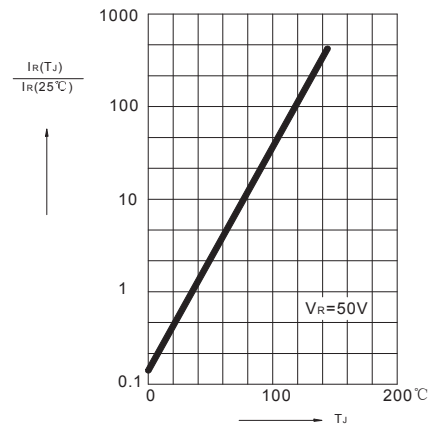


FIG.5 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

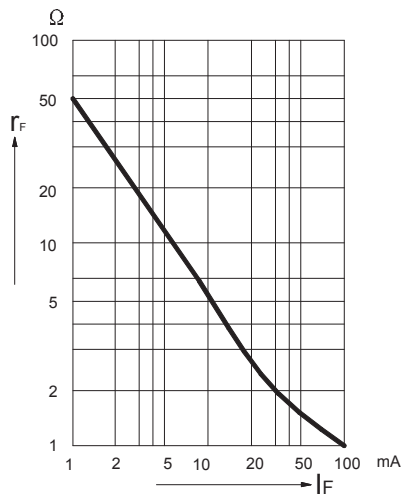


FIG.6 – CAPACITANCE VERSUS REVERSE VOLTAGE

