BAV17 - BAV21

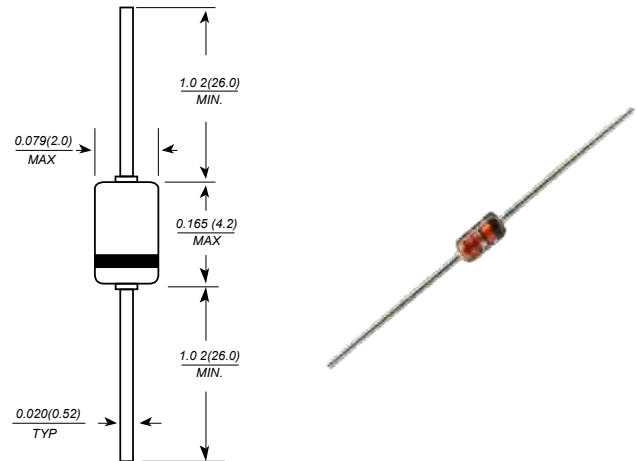## SMALL SIGAL SWITCHING DIODES

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
- Weight: 0.004 ounces, 0.13 grams

RoHS COMPLIANT

DO-35(GLASS)

1.0 2(26.0) MIN.

0.079(2.0) MAX

0.165 (4.2) MAX

1.0 2(26.0) MIN.

0.020(0.52) TYP

Dimensions in millimeters

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic	Symbol	BAV17	BAV18	BAV19	BAV20	BAV21	Unit
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℃ and f≥50Hz	$I_{(AV)}$	250[1]					mA
Forward surge current @ t<1s and T_J=25℃	I_{FSM}	1.0					A
Power dissipation @ T_A=25℃	P_{tot}	500[1]					mW
Thermal resistance junction to ambient	$R_{θJA}$	350					K/W
Junction temperature	T_J	175					℃
Storage temperature range	T_{STG}	-55 --- +175					℃

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

Electrical Characteristics T_A = 25°C unless otherwise specified

Characteristic	Symbol	MIN	TYP	MAX	Unit
Forward voltage @ I_F=100mA	V_F	-	-	1.0	V
Leakage current @T_j=25℃	I_R	-	-	100	nA
at reverse voltage @T_j=100℃		-	-	15	μA
Capacitance @ V_F=V_R=0V f=1MH$_Z$	C_J	-	1.5	-	pF
Reverse recovery time from I_F=30mA to I_R=30mA from I_{RR}=3mA, R_L=100Ω.	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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FIG.1 – FORWARD CHARACTERISTICS
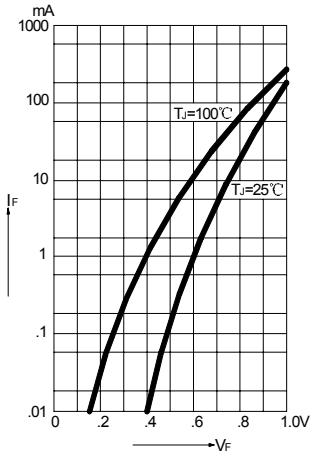
FIG.2 – ADMISSIBLE FORWARD CURRENT VERSUS AMBIENT TEMPERATURE
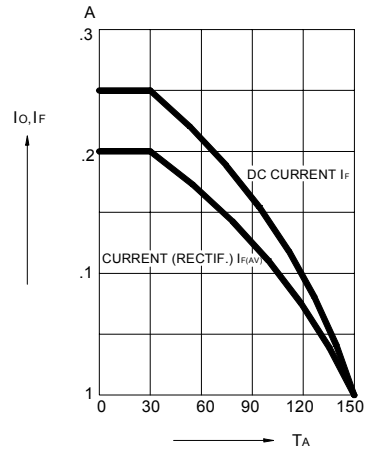
FIG.3 – ADMISSIBLE POWER DISSLPATION VERSUS AMBIENT TEMPERATURE
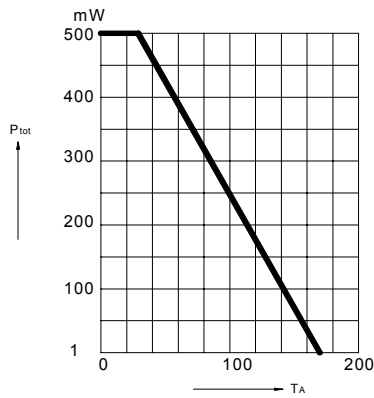
FIG.4 – LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE
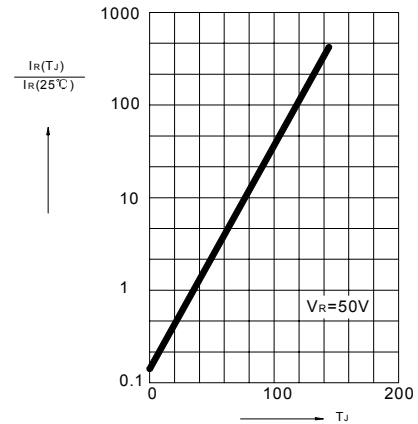
FIG.5 – DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT
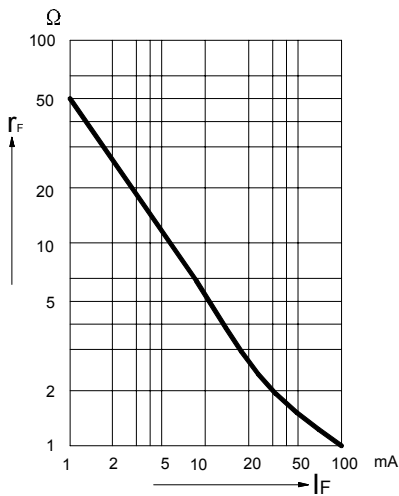
FIG.6 – CAPACITANCE VERSUS REVERSE VOLTAGE

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