BAT41

AXIAL LEADED SMALL SIGNAL SCHOTTKY DIODE

VOLTAGE RANGE: 100V
CURRENT: 0.1A

Features

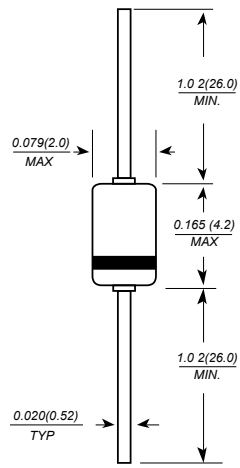
- For general purpose applications
- This diode features low turn-on voltage and high breakdown voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges

Mechanical Data

- Case: DO-35, glass case
- Polarity: Color band denotes cathode
- Weight: 0.004 ounces, 0.13 grams

RoHS COMPLIANT

DO-35(GLASS)



Dimensions in millimeters

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

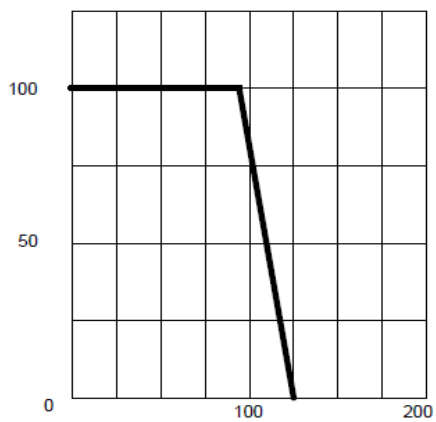
Characteristic	Symbol	Value	Unit
Continuous reverse voltage	V_{RRM}	100	V
Forw ard continuous current @T_A=25℃	I_F	100 [1]	mA
Repetitive peak forward current tp≤1s,δ≤0.5	I_{FRM}	350 [1]	mA
Surge forw ard current @tp≤10ms	I_{FSM}	750 [1]	mA
Pow er dissipation @T_A=95℃	P_{tot}	100 [1]	mW
Junction temperature	T_J	-55 ---+ 125	℃
Ambient operating temperature range	T_L	230	℃
Storage temperature range	T_{STG}	-55 ---+ 150	℃

1) On infinite heatsink with 4mm lead length.

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage @I_R=100μ A,T_j=25℃	V_{BR}	100	-	-	V
Forw ard voltage @ I_F=1mA,T_j=25℃	V_F	-	0.4	0.45	V
@ I_F=200mA,T_j=25 ℃		-	-	1.0	
Leakage current @T_j=25 ℃	I_R	-	-	0.1	μA
VR=50V @T_j=100 ℃		-	-	20	
Junction capacitance at VR=1V,f=1MHz	C_J	-	-	20	pF
Thermal resistance junction to ambient	$R_{\theta JA}$	-	-	300[1]	℃/W

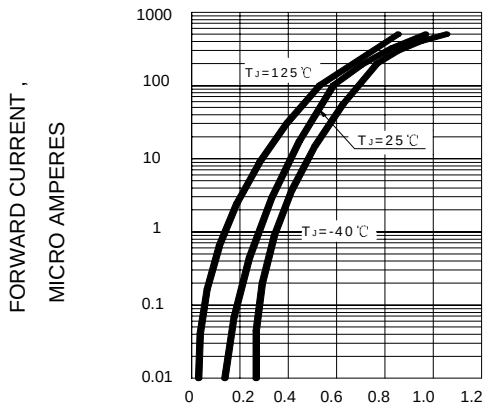
2)Pulse test tp<300 μs, δ <2%

FIG.1 – ADMISSIBLE POWER DISSIPATION VS. AMBIENT TEMPERATURE



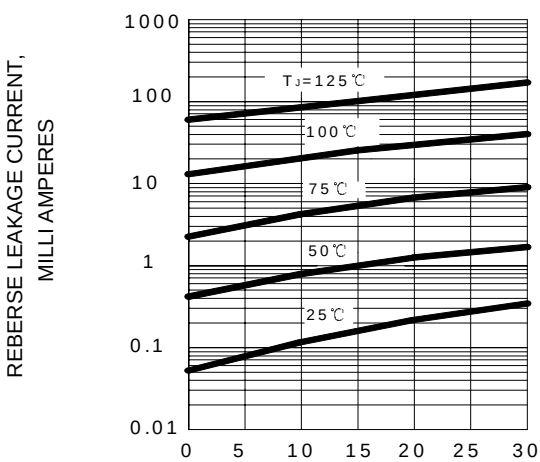
T_A - Ambient temperature(℃)

FIG. 2–TYPICAL INSTANTANEOUS FORWORD CHARACTERISTICS



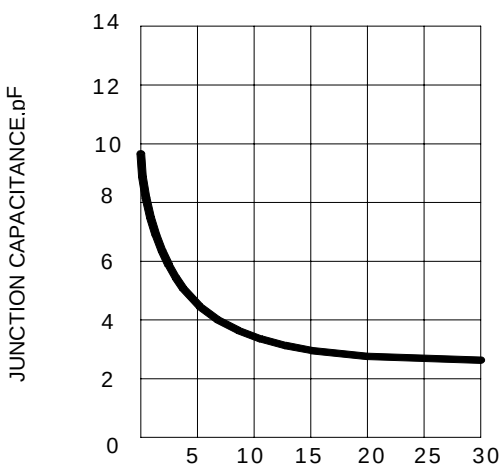
FORWARD VOLTAGE,VOLT

FIG. 3 – TYPICAL REVERSE CHARACTERISTICS



REVERSE VOLTAGE, VOLT

FIG.4 – TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLT