BAT48

AXIAL LEADED SMALL SIGNAL SCHOTTKY DIODE

VOLTAGE RANGE: 40V
CURRENT: 0.35A

Features

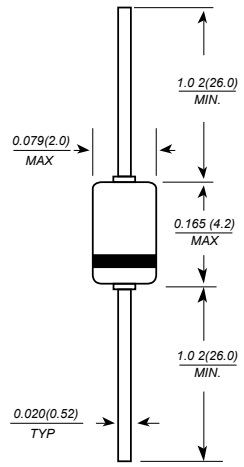
- For general purpose applications
- These diodes feature very low turn-on voltage and fast switching.These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.

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 Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Continuous Forward Current	I_F	350(1)	mA
Repetitive Peak Forward Current at tp < 1s,	I_{FRM}	1(1)	A
Forward Surge Current at tp < 10 ms,	I_{FSM}	7.5(1)	A
Power Dissipation ,Ta = 65 °C	P_D	330(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300(1)	°C/W
Junction Temperature	T_J	125	°C
Ambient Operating Temperature Range	Ta	-65 to + 125	°C
Storage temperature range	T_S	-65 to + 150	°C

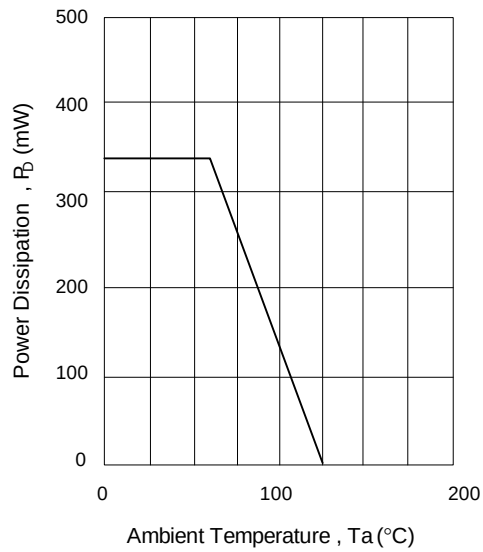
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics (T_J = 25°C unless otherwise noted)

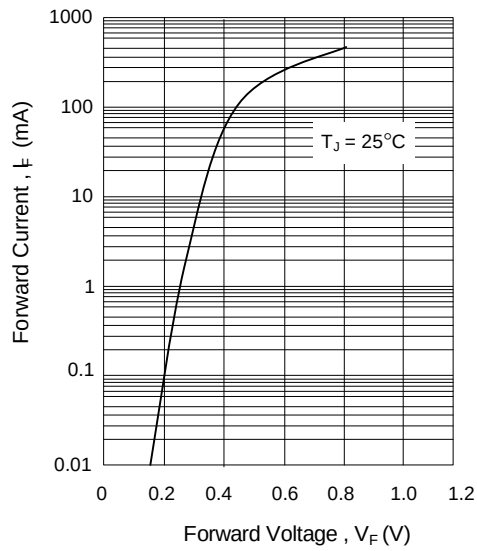
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 100 μA (pulsed)	40	-	-	V
Reverse Current Pulse Test tp <300μs , δ <2%	I_R	V_R = 10 V V_R = 20 V V_R = 40 V	- - -	- - -	2 5 25	μA
Forward Voltage Pulse Test tp <300μs , δ <2%	V_F	I_F = 1mA I_F = 10mA I_F = 30mA I_F = 100mA I_F = 500mA	- - - - -	- - - - -	0.30 0.40 0.50 0.75 0.90	V
Diode Capacitance	Cd	V_R = 1V, f = 1MHz	-	12	-	pF

RATING AND CHARACTERISTIC CURVES (BAT48)

Admissible Power Dissipation vs. Ambient Temperature



Typical Forward Characteristicss



Typical Reverse Characteristics