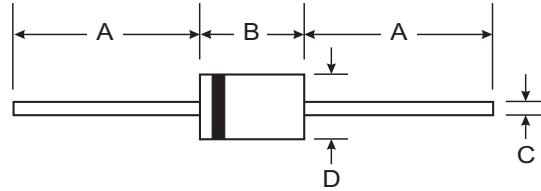


Features

- High Reverse Breakdown Voltage
- Low Turn-On Voltage
- Guard Ring Construction for Transient Protection
- **Lead Free Finish, RoHS Compliant (Note 3)**



Mechanical Data

- Case: DO-35
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish — Matte Tin. Solderable per MIL-STD-202, Method 208
- Marking: Type Number
- Polarity: Cathode Band
- Weight: 0.13 grams (approximate)

DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAT46	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
Forward Continuous Current (Note 1)	I _{FM}	150	mA
Average Rectified Output Current (Note 1)	I _O	75	mA
Repetitive Peak Forward Current (Note 1) @ t ≤ 1.0s	I _{FRM}	350	mA
Non-Repetitive Peak Forward Surge Current @ t = 10ms	I _{FSM}	750	mA
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R _{θJA}	500	K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	V _{(BR)R}	100	—	—	V	I _{RS} = 10μA (pulses)
Reverse Leakage Current (Note 2)	I _R	—	—	0.5 5.0 0.8 7.5 2.0 15 5.0 20	μA	V _R = 1.5V V _R = 1.5V, T _J = 60°C V _R = 10V V _R = 10V, T _J = 60°C V _R = 50V V _R = 50V, T _J = 60°C V _R = 75V V _R = 75V, T _J = 60°C
Forward Voltage Drop (Note 2)	V _F	—	—	0.25 0.45 1.00	V	I _F = 0.1mA I _F = 10mA I _F = 250mA
Junction Capacitance	C _J	—	10 6.0	—	pF	V _R = 0V, f = 1.0MHz V _R = 1.0V, f = 1.0MHz

- Notes:
1. Valid provided that electrodes are kept at ambient temperature.
 2. t < 300μs, Duty Cycle < 2%.
 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7*.

Ordering Information (Note 4)

Device	Packaging	Shipping
BAT46-A	DO-35	10K/Ammo Pack
BAT46-T	DO-35	10K/Tape & Reel, 13-inch

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap2008.pdf>