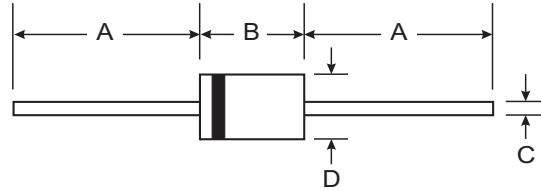


### Features

- 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<sub>A</sub> = 25°C unless otherwise specified

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

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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

<b>Device</b>	<b>Packaging</b>	<b>Shipping</b>
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>