

## Features

- ◆ For general purpose applications.
- ◆ This diode features low turn-on voltage. This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- ◆ This diode is also available in the MiniMELF case with type designation BAS85.

## Mechanical Data

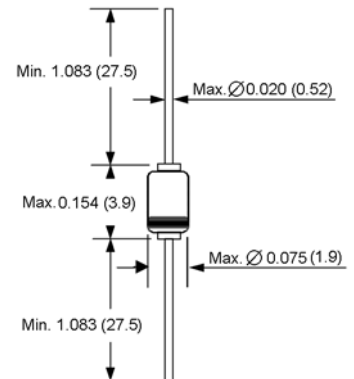
- ◆ Case: DO-35 Glass Case
- ◆ Weight: approx. 0.13g

## Maximum Ratings and Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

| Parameter   | Symbol          | Value               | Unit                      |
|---|-----------------|---------------------|---------------------------|
| Continuous reverse voltage  | $V_R$           | 30                  | Volts                     |
| Forward continuous current at $T_{amb}=25^\circ\text{C}$                | $I_F$           | 200 <sup>(1)</sup>  | mA                        |
| Peak forward current at $T_{amb}=25^\circ\text{C}$                      | $I_{FM}$        | 300 <sup>(1)</sup>  | mA                        |
| Surge forward current at $t_p < 1\text{s}$ , $T_{amb}=25^\circ\text{C}$ | $I_{FSM}$       | 600 <sup>(1)</sup>  | mA                        |
| Power dissipation at $T_{amb}=65^\circ\text{C}$                         | $P_{tot}$       | 200 <sup>(1)</sup>  | mW                        |
| Thermal resistance junction to ambient air                              | $R_{\theta JA}$ | 0.43 <sup>(1)</sup> | $^\circ\text{C}/\text{W}$ |
| Maximum junction temperature  | $T_j$           | 125                 | $^\circ\text{C}$          |
| Ambient operating temperature range                                     | $T_A$           | -65 to +125         | $^\circ\text{C}$          |
| Storage temperature range   | $T_S$           | -65 to +150         | $^\circ\text{C}$          |

## DO-204AH (DO-35 Glass)



Dimensions in inches and (millimeters)



## Electrical Characteristics

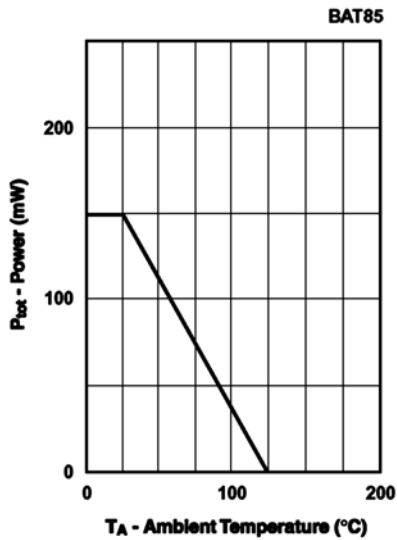
( $T_j=25^\circ\text{C}$  unless otherwise noted.)

| Parameter   | Symbol      | Test Condition   | Min. | Typ. | Max. | Unit          |
|---|-------------|--|------|------|------|---------------|
| Reverse breakdown voltage   | $V_{(BR)R}$ | $I_R=10\mu\text{A}$ (pulsed)                                   | 30   | -    | -    | Volts         |
| Leakage current   | $I_R$       | $V_R=25\text{V}$   | -    | -    | 2    | $\mu\text{A}$ |
| Forward voltage<br>pulse test $t_p < 300\mu\text{s}$ , $\delta < 2\%$ | $V_F$       | $I_F=0.1\text{mA}$   | -    | -    | 0.24 | Volt          |
|   |             | $I_F=1\text{mA}$   | -    | -    | 0.32 |               |
|   |             | $I_F=10\text{mA}$  | -    | -    | 0.4  |               |
|   |             | $I_F=30\text{mA}$  | -    | 0.5  | -    |               |
|   |             | $I_F=100\text{mA}$   | -    | -    | 0.8  |               |
| Capacitance   | $C_{tot}$   | $V_R=1\text{V}$ , $f=1\text{MHz}$                              | -    | -    | 10   | pF            |
| Reverse recovery time   | $t_{rr}$    | $I_F=10\text{mA}$ , $I_R=10\text{mA}$ ,<br>to $I_R=1\text{mA}$ | -    | -    | 5    | ns            |

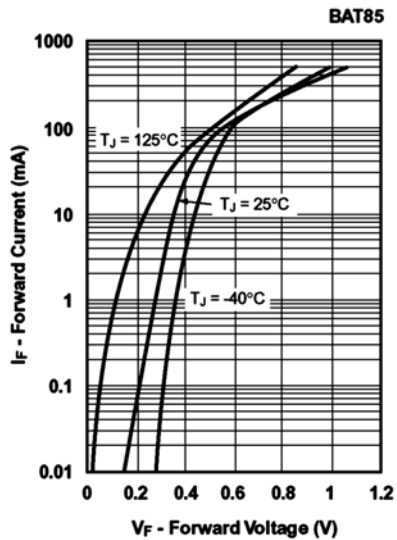
**Notes:** 1. Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

# RATINGS AND CHARACTERISTIC CURVES

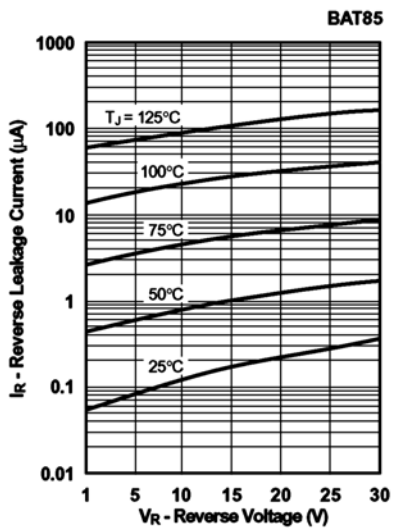
**Admissible Power Dissipation vs. Ambient Temperature**



**Typical Instantaneous Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**

