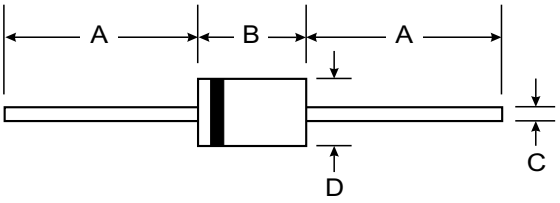
# BAT41

100mA Axial Leaded Schottky Barrier Diodes

## Features

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




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

## Mechanical Data

- Case:JEDEC DO--35,glass case
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.13 gram

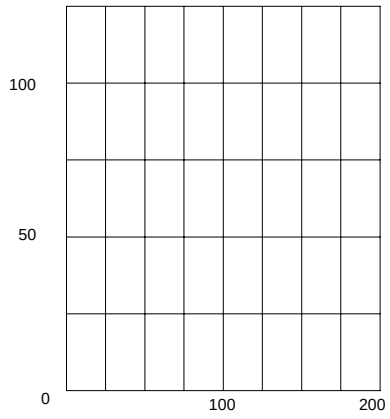
## Maximum Ratings and Electrical Characteristics @ $T_A$ = 25°C unless otherwise specified

| | Symbols | Value | UNITS |
|---|---|---|---|
| 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 | ℃ |

| | Symbols | Min. | Typ. | Max. | UNITS |
|---|---|---|---|---|---|
| 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 |

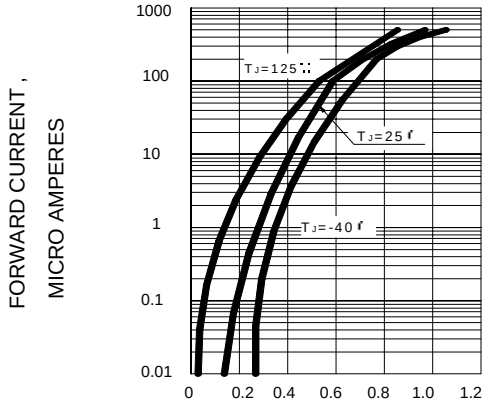
1) On infinite heatsink with 4mm lead length.
2)Pulse test tp<300μs, ℃ <2%

**FIG.1 – ADMISSIBLE POWER DISSIPATION VS. AMBIENT TEMPERATURE**



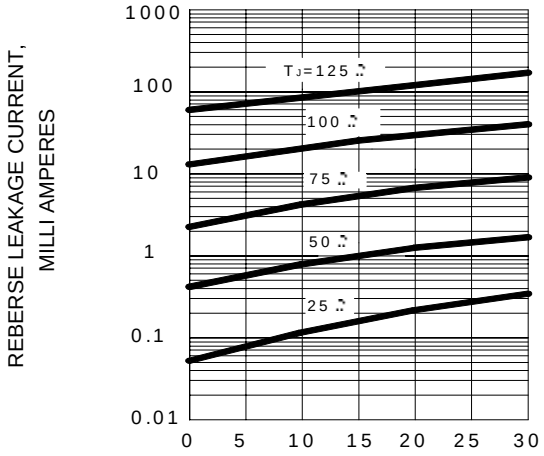

AMBIENT TEMPERATURE( ℃ )

**FIG. 2–TYPICAL INSTANTANEOUS FORWORD CHARACTERISTICS**



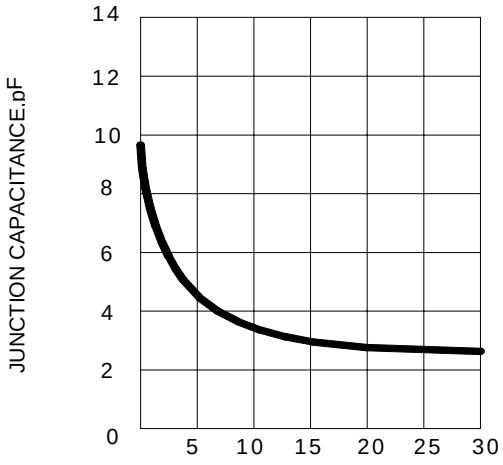

FORWARD VOLTAGE,VOLT

**FIG. 3 – TYPICAL REVERSE CHARACTERISTICS**




REVERSE VOLTAGE, VOLT

**FIG.4 – TYPICAL JUNCTION CAPACITANCE**




REVERSE VOLTAGE, VOLT