

# 200mA,50V Schottky Diodes

#### **Features**

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260 ℃/10 seconds



DO-35(DO-204AH)

### **Applications**

- HF-Detector, Protection circuit
- DC/DC converter for notebooks
- Small battery charger, Power supplies

| Maximum Ratings & Electrical Characteristics(TA=25°C unless otherwise noted) |                  |             |      |  |
|--|------------------|-------------|------|--|
| Parameter  | Symbol           | BAT86       | Unit |  |
| Maximum repetitive peak reverse voltage                                      | $V_{RRM}$        | 50          | ٧    |  |
| Forward continuous current   | lF               | 200         | mA   |  |
| Repetitive peak forward current at tp<1s, δ<0.5                              | I <sub>FRM</sub> | 500         | mA   |  |
| Power dissipation (infinite heatsink)  | P <sub>tot</sub> | 200         | mW   |  |
| Surge forward current at tp<10ms   | I <sub>FSM</sub> | 7.5         | Α    |  |
| Maximum junction temperature   | TJ               | 125         | °C   |  |
| Storage temperature range  | Tstg             | -65 to +150 | °C   |  |

| Thermal-Mechanical Specifications (TA=25°C unless otherwise noted) |                   |     |       |  |
|--|-------------------|-----|-------|--|
| Parameter  | Symbol            | Тур | Unit  |  |
| Thermal Resistance, Junction to Ambient                            | R <sub>θ</sub> JA | 300 | °C /W |  |



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| Electrical Specifications(TA=25°C unless otherwise noted) |                  |   |       |       |      |
|---|------------------|---|-------|-------|------|
| Parameter   | Symbol           | Test<br>Conditions                                  | Тур   | Max   | Unit |
| Maximum forward voltage pulse test tp<300us,δ<2%          | VF               | I <sub>F</sub> =0.1mA                               | 0.200 | 0.300 |      |
|   |                  | I <sub>F</sub> =1mA                                 | 0.275 | 0.380 |      |
|   |                  | I <sub>F</sub> =10mA                                | 0.365 | 0.450 | V    |
|   |                  | I⊧=30mA   | 0.460 | 0.600 |      |
|   |                  | I <sub>F</sub> =100mA                               | 0.700 | 0.900 |      |
| Maximum leakage current pulse test tp<300us, δ<2%         | I <sub>R</sub>   | V <sub>R</sub> =40V                                 | 0.3   | 5     | uA   |
| Maximum junction capacitance                              | C <sub>tot</sub> | 1 V<br>1 MHZ  | 8     |       | pF   |
| Maximum reverse recovery time                             | t <sub>rr</sub>  | $I_F=I_R=10$ mA<br>$I_T=1$ mA,<br>$RL=100$ $\Omega$ | 5     |       | nS   |

#### Note:

1. Valid provided that electrodes are kept at ambient temperature.





## **Ratings and Characteristics Curves**

(TA = 25°C unless otherwise noted)

Admissible power dissipation
versus ambient temperature
Valid provided that leads are kept ambient
temperature at a distance of 9.5 mm from case

400

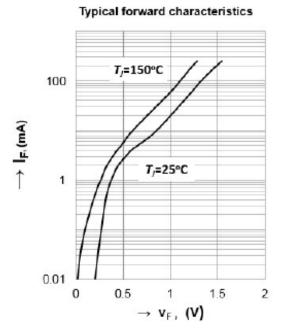
400

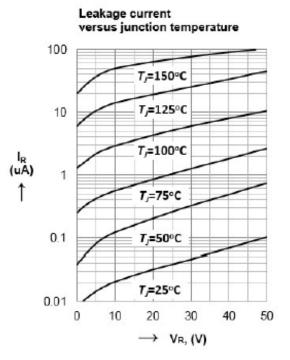
100

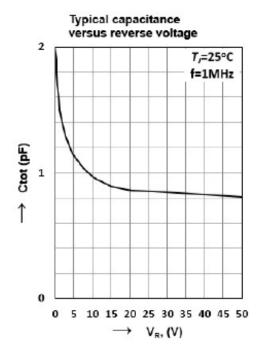
100

200

Tamb, (°C)







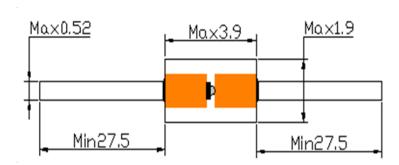


## **Package Outline Dimensions**

in inches (millimeters)

## DO-35 (DO-204AH)

CASE DIMENSION (DO-35 Type, 52mm), Unit: mm



### **Revision History**

| Document Version | Date of release | Description of changes |
|------------------|-----------------|------------------------|
| Rev.A            | 2021.06.01      | Released Datasheet     |
| Rev.B            | 2023.10.31      | Modify document format |





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