

## 0.5A, 1200-2000V High Voltage Rectifiers

### Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- 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°C/10 seconds



DO-41(DO-204AL)

### Applications

- Small battery charger, Power supplies

| Maximum Ratings & Electrical Characteristics (T <sub>A</sub> =25°C unless otherwise noted)   |                    |             |       |       |       |      |
|--|--------------------|-------------|-------|-------|-------|------|
| Parameter  | Symbol             | R1200       | R1500 | R1800 | R2000 | Unit |
| Maximum repetitive peak reverse voltage  | V <sub>RRM</sub>   | 1200        | 1500  | 1800  | 2000  | V    |
| Maximum RMS voltage  | V <sub>RMS</sub>   | 840         | 1050  | 1260  | 1400  | V    |
| Maximum DC blocking voltage  | V <sub>DC</sub>    | 1200        | 1500  | 1800  | 2000  | V    |
| Maximum average forward rectified current  | I <sub>F(AV)</sub> | 0.5         |       |       |       | A    |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode | I <sub>FSM</sub>   | 30          |       |       |       | A    |
| Operating junction temperature range   | T <sub>J</sub>     | -55 to +135 |       |       |       | °C   |
| Storage temperature range  | T <sub>STG</sub>   | -55 to +135 |       |       |       | °C   |

| Thermal-Mechanical Specifications (T <sub>A</sub> =25°C unless otherwise noted) |                  |     |      |
|---|------------------|-----|------|
| Parameter   | Symbol           | Typ | Unit |
| Thermal Resistance, Junction to Ambient   | R <sub>θJA</sub> | 52  | °C/W |
| Thermal Resistance, Junction to Case  | R <sub>θJC</sub> | 15  | °C/W |
| Thermal Resistance, Junction to Lead  | R <sub>θJL</sub> | 13  | °C/W |

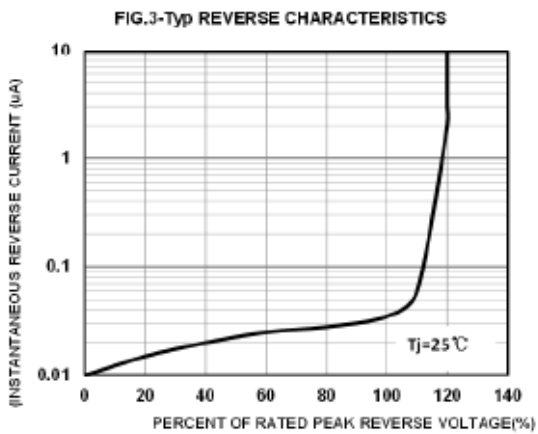
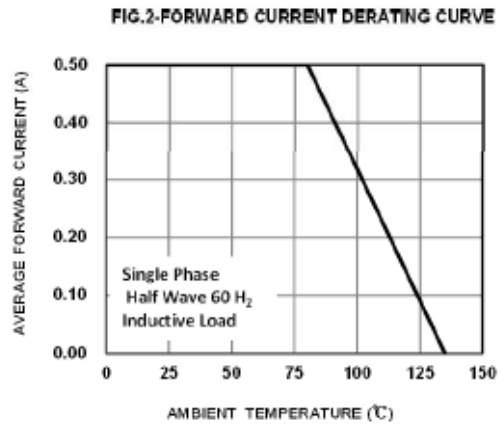
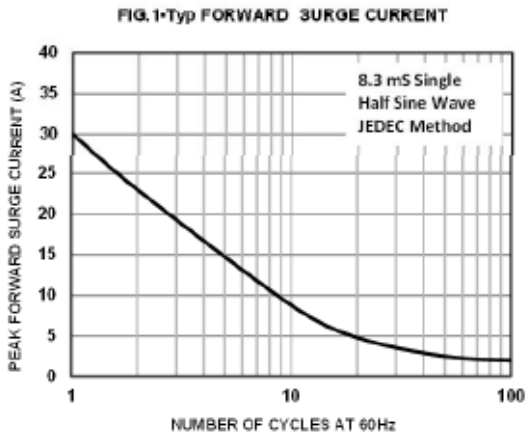
| Electrical Specifications (T <sub>A</sub> =25°C unless otherwise noted) |                |                       |       |       |       |       |      |
|---|----------------|-----------------------|-------|-------|-------|-------|------|
| Parameter   | Symbol         | Test Conditions       | R1200 | R1500 | R1800 | R2000 | Unit |
| Forward Drop Voltage  | V <sub>F</sub> | I <sub>F</sub> =0.5A  | 2.0   |       |       |       | V    |
| Reverse leakage current @V <sub>R</sub>                                 | I <sub>R</sub> | T <sub>J</sub> =25°C  | 5     |       |       |       | uA   |
|   |                | T <sub>J</sub> =100°C | 50    |       |       |       |      |
| Typical junction capacitance  | C <sub>J</sub> | 4.0 V<br>1 MHz        | 30    |       |       |       | pF   |

Note:

1. Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

## Ratings and Characteristics Curves

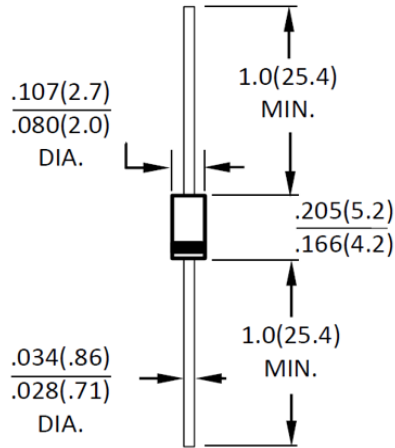
(TA = 25°C unless otherwise noted)



**Package Outline Dimensions**

in inches (millimeters)

**DO-41(DO-204AL)**



Dimensions in inches and (millimeters)

**Revision History**

| Document Version | Date of release | Description of changes |
|------------------|-----------------|------------------------|
| Rev.A            | 2021.06.01      | Released Datasheet     |
| Rev.B            | 2023.12.05      | Modify document format |

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