

## Specifications

|                 |        |
|-----------------|--------|
| Reverse Voltage | : 300V |
| Forward Current | : 3A   |

## Features

- Diffused junction.
- Ultra fast switching for high efficiency.
- Low reverse leakage current.
- Low forward voltage drop.
- High current capability.

## Mechanical Data

|                   |                               |
|-------------------|-------------------------------|
| Case              | : JEDEC DO-27 moulded plastic |
| Polarity          | : Colour band denotes cathode |
| Weight            | : 0.04oz, 1.1g                |
| Mounting Position | : Any                         |

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

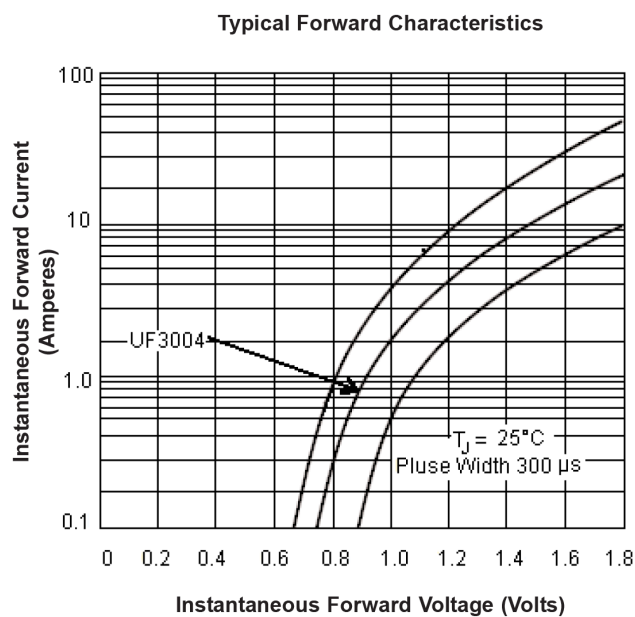
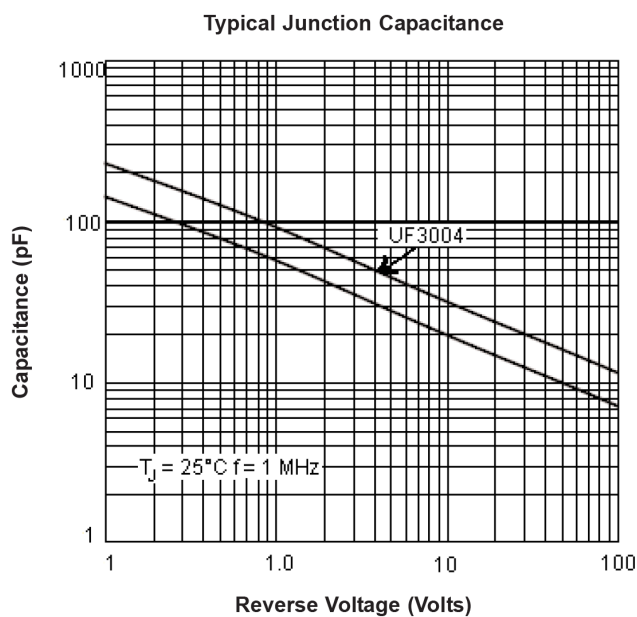
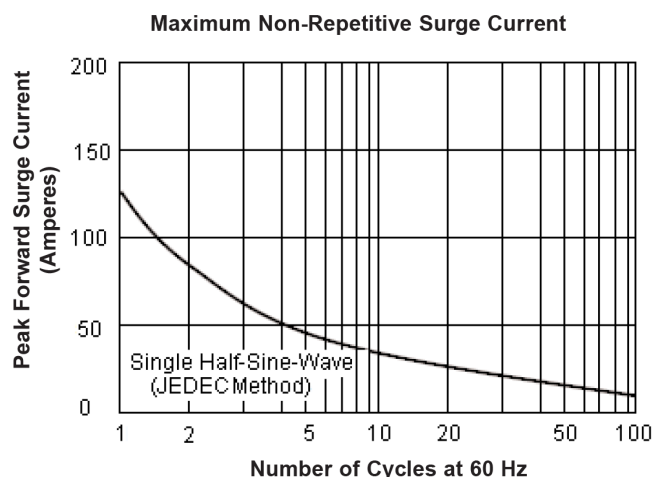
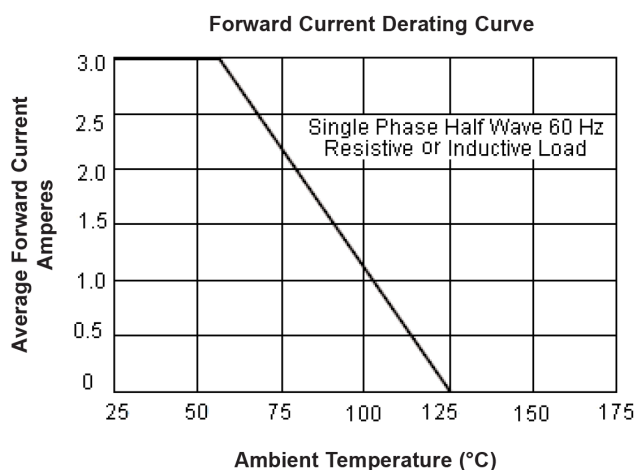
For capacitive load, derate current by 20%

| Characteristics                                                                                                 | Symbol          | Values      | Unit          |
|-----------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------------|
| Maximum Recurrent Peak Reverse Voltage                                                                          | $V_{RRM}$       | 300         | V             |
| Maximum RMS Voltage                                                                                             | $V_{RMS}$       | 210         |               |
| Maximum DC Blocking Voltage                                                                                     | $V_{DC}$        | 300         |               |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Lengths @ $T_A=55^{\circ}C$                    | $I_{(AV)}$      | 3           | A             |
| Bakelite Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load(JEDEC Method) | $I_{FSM}$       | 125         |               |
| Peak Forward Voltage at 2A DC                                                                                   | $V_F$           | 1.3         | V             |
| Maximum DC Reverse Current @ $T_J=25^{\circ}C$<br>at Rated DC Blocking Voltage @ $T_J=100^{\circ}C$             | $I_R$           | 5<br>100    | $\mu A$       |
| Maximum Reverse Recovery Time (Note 1)                                                                          | $T_{RR}$        | 50          | nS            |
| Typical Junction Capacitance (Note 2)                                                                           | $C_J$           |             | pF            |
| Typical Thermal Resistance (Note 3)                                                                             | $R_{\theta JA}$ | 20          | $^{\circ}C/W$ |
| Operating Temperature Range                                                                                     | $T_J$           | -55 to +125 | $^{\circ}C$   |
| Storage Temperature Range                                                                                       | $T_{STG}$       | -55 to +150 |               |

### Notes:

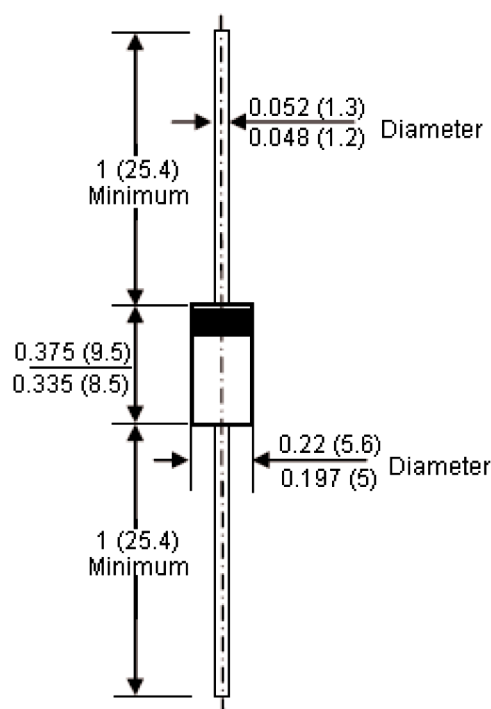
1. Measured with  $I_F = 0.5A$ ,  $I_R = 1A$ ,  $I_{RR} = 0.25A$ .
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to ambient.

## Rating and Characteristic Curves:



## Diagram

DO - 27



Dimensions : Inches (Millimetres)

## Part Number Table

| Description                    | Part Number |
|--------------------------------|-------------|
| Ultra Fast Rectifier, 300V, 3A | UF3004      |

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