

UF5400 THRU UF5408

Ultra Fast Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 3 A

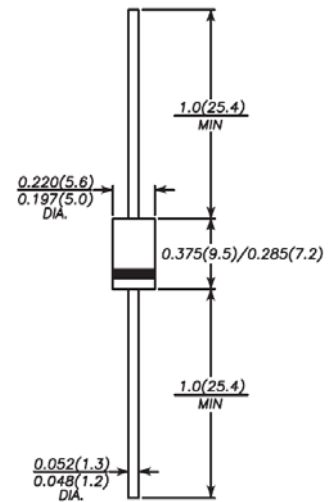
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low cost
- Ultrafast recovery time for high efficiency
- High current capability, low forward voltage
- High surge capability
- Low leakage

Mechanical Data

- **Case:** Molded plastic body, JEDEC DO-201AD
- **Terminals:** Plated Axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end.
- **Mounting Position:** Any

DO-201AD



Dimensions in inches and (millimeters)

Absolute Maximum Ratings and Characteristics

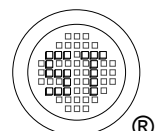
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | Symbols | UF5400 | UF5401 | UF5402 | UF5403 | UF5404 | UF5405 | UF5406 | UF5407 | UF5408 | Units |
|--|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|------------------|
| | Marking | UF5400 | UF5401 | UF5402 | UF5403 | UF5404 | UF5405 | UF5406 | UF5407 | UF5408 | - |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_a = 55^\circ\text{C}$ | $I_{F(AV)}$ | 3 | | | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 125 | | | | | | | | | A |
| Maximum Forward Voltage at 3 A | V_F | 1 | | 1.3 | | 1.7 | | | | V | |
| Maximum Reverse Current $T_j = 25^\circ\text{C}$ at Rated Reverse Voltage $T_j = 100^\circ\text{C}$ | I_R | 5 150 | | | | | | | | | μA |
| Maximum Reverse Recovery Time ¹⁾ | t_{rr} | 50 | | | | | 75 | | | | ns |
| Typical Junction Capacitance ²⁾ | C_j | 45 | | | | | | | | | pF |
| Typical Thermal Resistance ³⁾ | $R_{\theta JA}$ | 20 | | | | | | | | | $^\circ\text{C}$ |
| Operating and Storage Temperature Range | T_J, T_{Stg} | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |

¹⁾ Reverse recovery condition $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$.

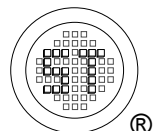
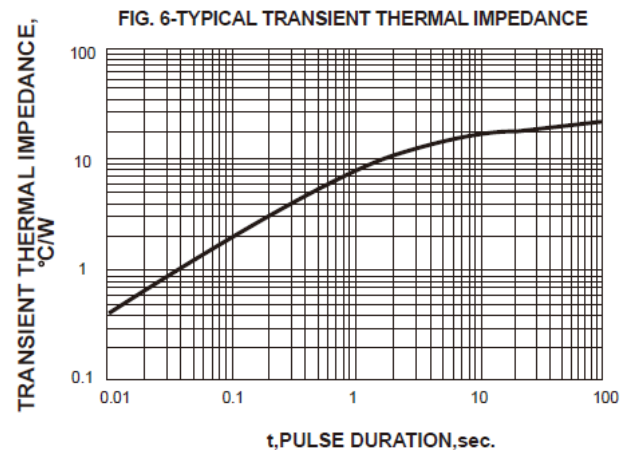
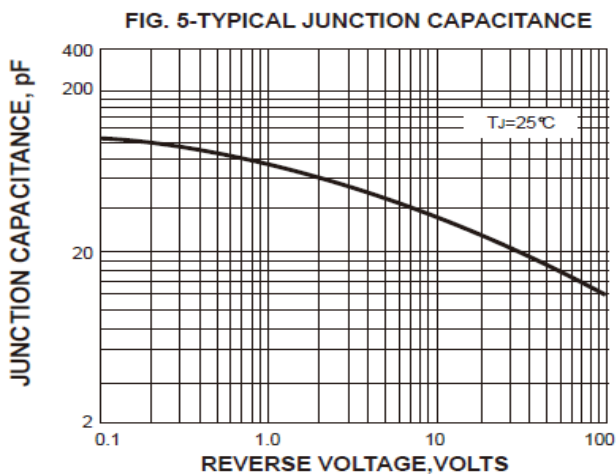
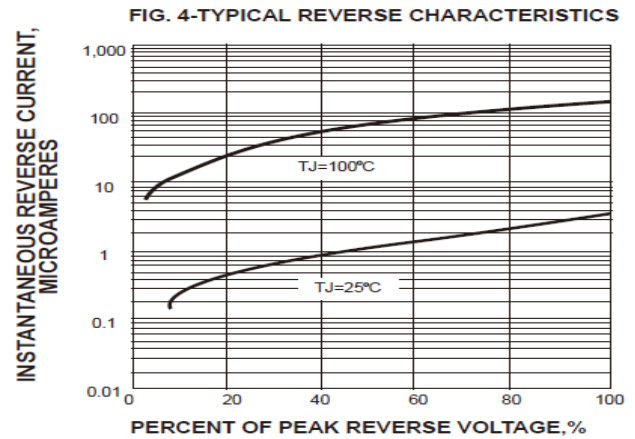
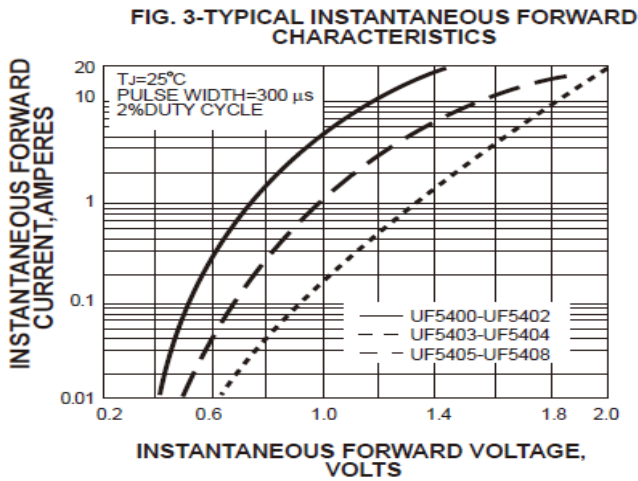
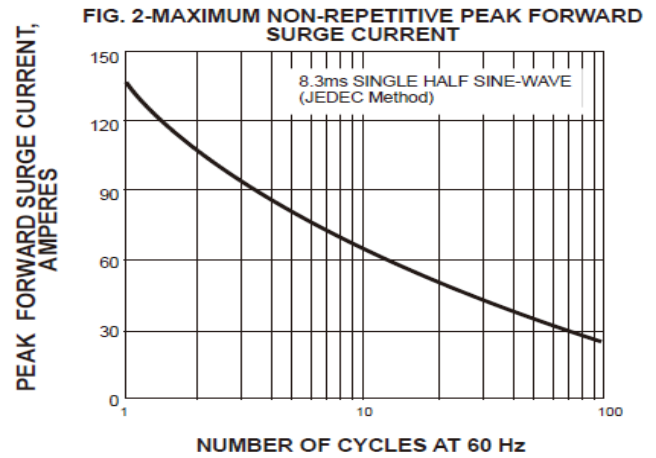
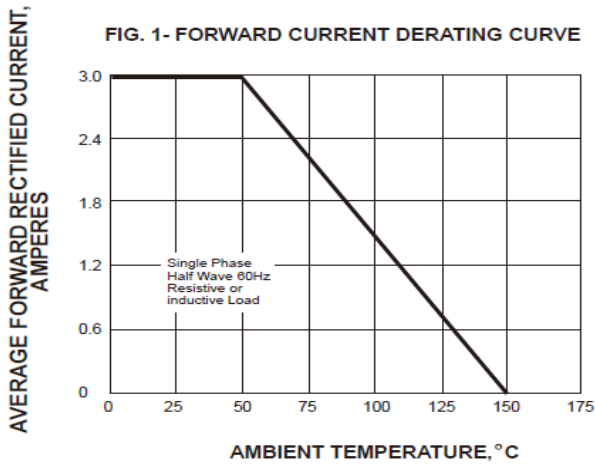
²⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

³⁾ Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length P.C.B.mounted.



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Electrical Characteristics Curves



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Marking information

"*****" = Part No.

Font type: Arial

