

UF5400~UF5408

ULTRAFAST PLASTIC RECTIFIER

Reverse Voltage – 50 to 1000 Volts

Forward Current – 3.0 Amperes

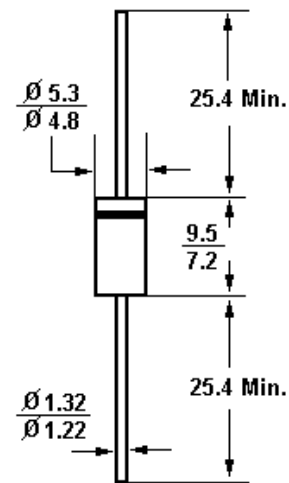
DO-201AD

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Low cost
- Ultrafast recovery time for high efficiency
- High current capability, low forward voltage
- High surge capability
- Low leakage
- High temperature soldering guaranteed:
250°C/10 sec, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

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



Dimensions in mm

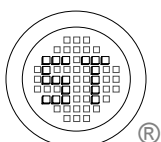
Absolute Maximum Ratings and Characteristics

Ratings at 25°C unless otherwise specified.

| | Symbols | UF 5400 | UF 5401 | UF 5402 | UF 5403 | UF 5404 | UF 5405 | UF 5406 | UF 5407 | UF 5408 | Units |
|--|------------------------------------|-------------|---------|---------|---------|---------|---------|--------------------|---------|---------|------------------|
| 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 $T_A = 55^\circ\text{C}$ | $I_{(AV)}$ | 3.0 | | | | | | | | | A |
| Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method) at $T_A = 55^\circ\text{C}$ | I_{FSM} | 150 | | | | | | | | | A |
| Maximum instantaneous forward voltage at 3 A (Note 1) | V_F | 1.0 | | 1.3 | | 1.7 | | | | V | |
| Maximum reverse current at rated reverse voltage | I_R | 10 | | | | | | | | | μA |
| Maximum reverse recovery time At $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$, $T_J = 25^\circ\text{C}$ | t_{rr} | 50 | | | | 75 | | | | ns | |
| Typical junction capacitance at 4.0V, 1MHz | C_{tot} | 45 | | | 36 | | | | pF | | |
| Typical thermal resistance (Note 2) | $R_{\theta JA}$ $R_{\theta JL}$ | 20 8.5 | | | | | | $^\circ\text{C/W}$ | | | |
| Operating junction temperature range | T_J | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |
| storage temperature range | T_S | -55 to +150 | | | | | | | | | $^\circ\text{C}$ |

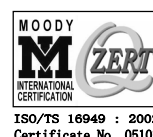
Notes:(1) Pulse test: 300 μs pulse width, 1% duty cycle

(2) Thermal resistance from junction to lead and from junction to ambient with 0.375" (9.5mm) lead length, both leads attached to heatsink.



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ISO/TS 16949 : 2002
Certificate No. 05103



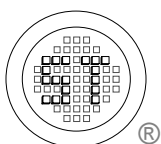
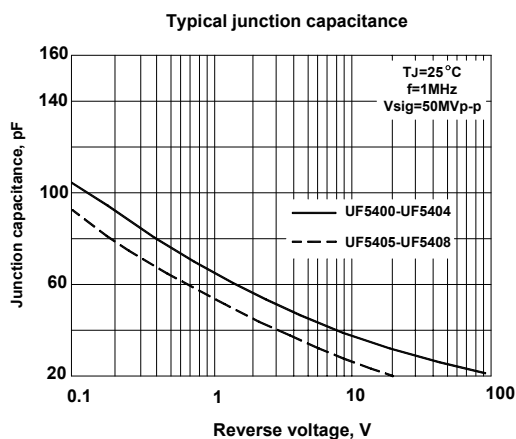
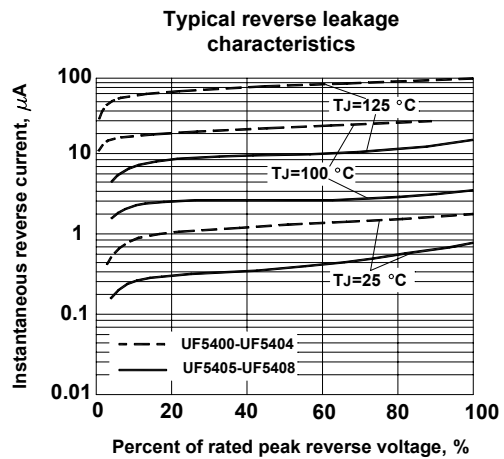
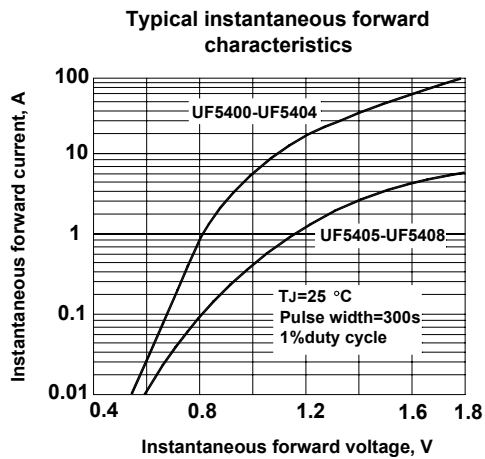
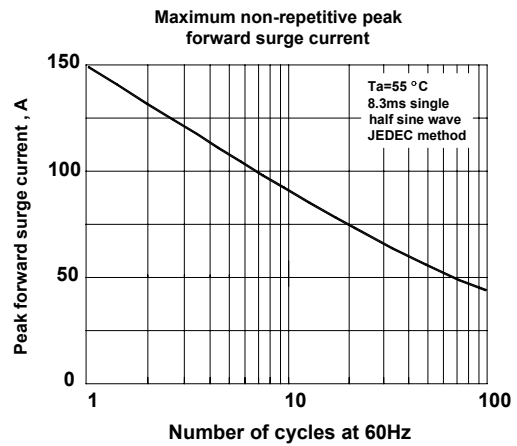
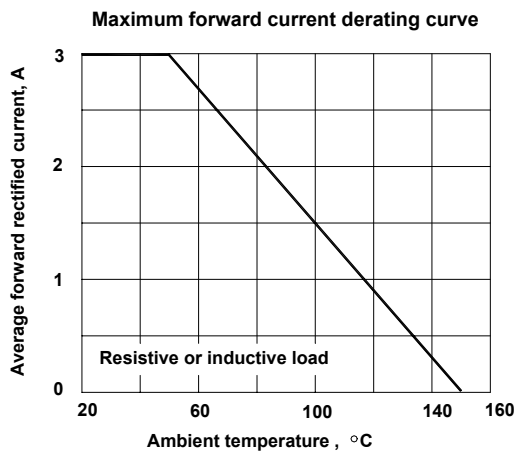
ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 555-156-000-00

Dated : 04/07/2003

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