



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**UF5400
THRU
UF5408**

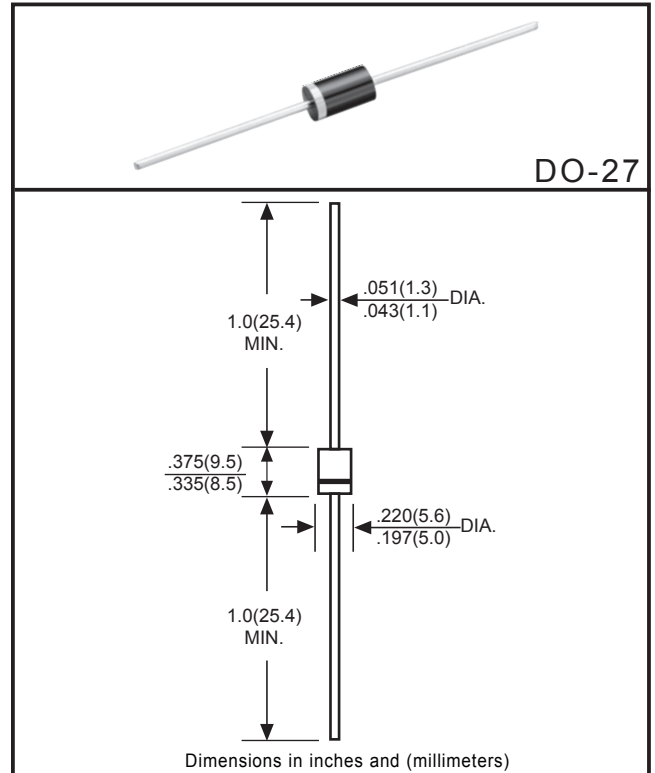
TECHNICAL SPECIFICATIONS OF ULTRA FAST RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

FEATURES

- * Low power loss, high efficiency
- * Low forward voltage drop
- * High current capability
- * Ultra fast switching
- * High reliability
- * High surge capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94-V0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.08 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | SYMBOL | UF5400 | UF5401 | UF5402 | UF5404 | UF5406 | UF5407 | UF5408 | UNITS |
|---|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current at T _A = 50°C | I _O | 3.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 150 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage at 3.0 A DC | V _F | 1.0 | | | | 1.7 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @T _J = 25°C | 10 | | | | | | | μAmps |
| | @T _J = 125°C | 150 | | | | | | | |
| Maximum Reverse Recovery Time (Note 1) | t _{rr} | 50 | | | | 100 | | | nSec |
| Typical Junction Capacitance (Note 2) | C _J | 70 | | | | 50 | | | pF |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | °C |

Note 1 : Test conditions: I_F = 0.5A, I_R = 0.1A, I_{RR} = 0.25A.

Note 2 : Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (UF5400 THRU UF5408)

FIG. 1
TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

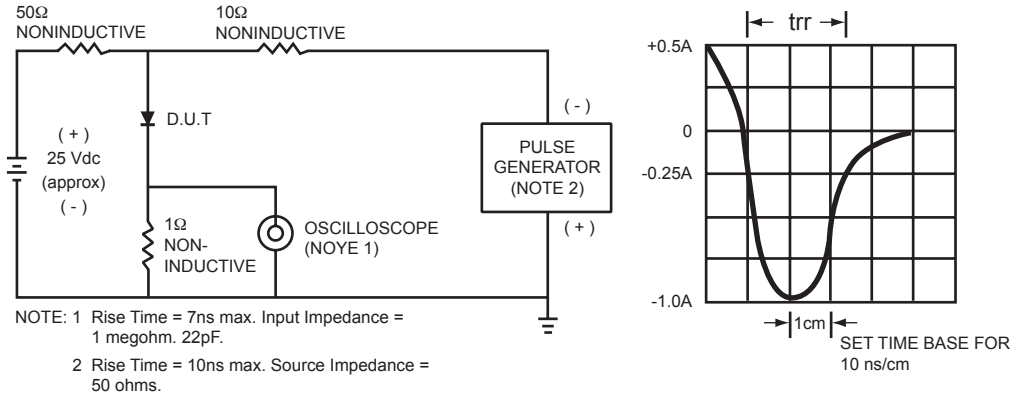


FIG. 2
TYPICAL FORWARD
CURRENT DERATING CURVE

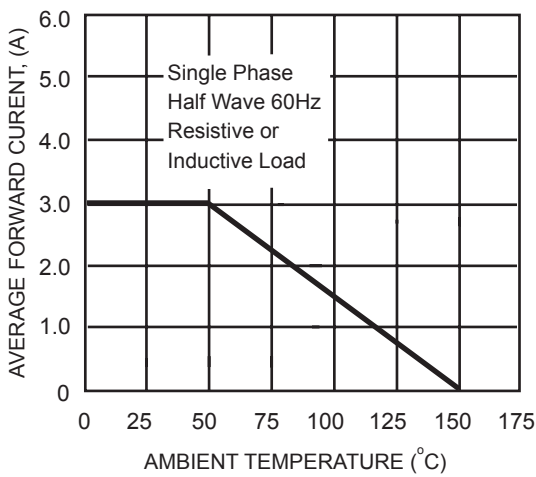


FIG. 3
TYPICAL REVERSE CHARACTERISTICS

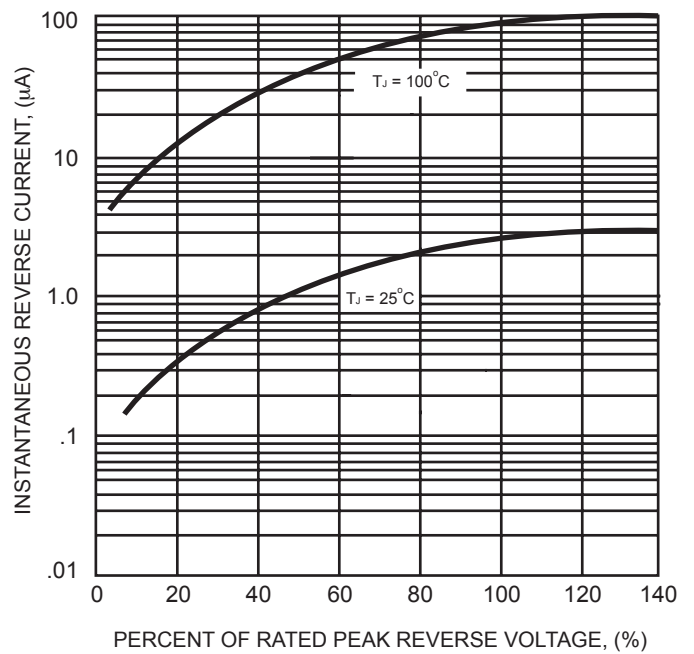


FIG. 4
TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

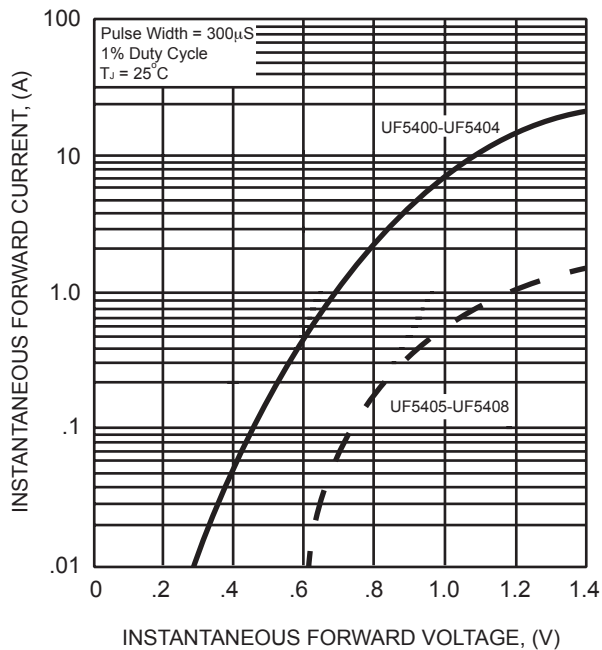
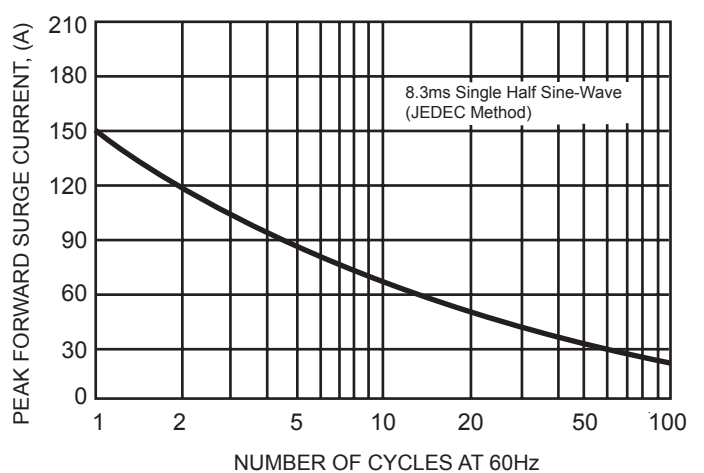


FIG. 5
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT



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