

ULTRAFAST RECTIFIER

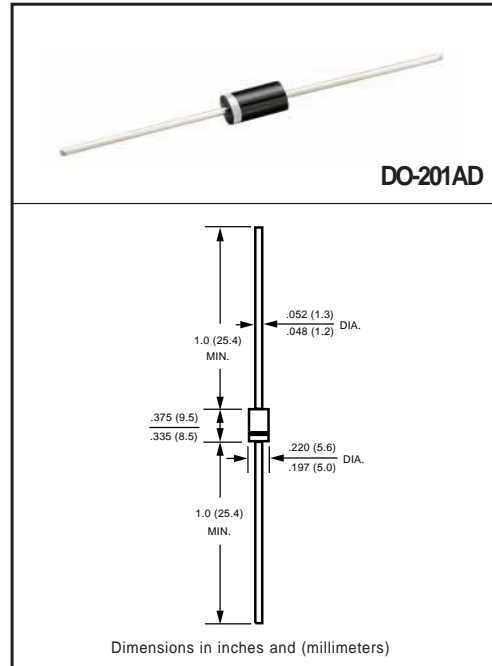
VOLTAGE RANGE 200 to 600 Volts CURRENT 4.0 Amperes

FEATURES

- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Ultrafast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.18 gram



MAXIMUM RATINGS AND ELECTRICAL 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%.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | MUR420 | MUR440 | MUR460 | UNITS |
|---------------------------------------------------------------------------------------------------|-----------------------------------|--------------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 200 | 400 | 600 | Volts |
| Maximum RMS Voltage | V _{RMS} | 140 | 280 | 420 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 200 | 400 | 600 | Volts |
| Maximum Average Forward Rectified Current at T _A =55°C | I _O | 4.0 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 125 | 110 | | Amps |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | | | °C |

ELECTRICAL CHARACTERISTICS(@T_A=25 °C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | MUR420 | MUR440 | MUR460 | UNITS |
|---------------------------------------------------------|-------------------------|--------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 4.0A DC | V _F | 0.89 | 1.28 | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @T _J = 25°C | 5 | 10 | | uAmps |
| | @T _J = 100°C | 150 | 250 | | |
| Maximum Reverse Recovery Time (Note 1) | t _{rr} | 25 | 50 | | nSec |

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)"

RATING AND CHARACTERISTICS CURVES (MUR420 THRU MUR460)

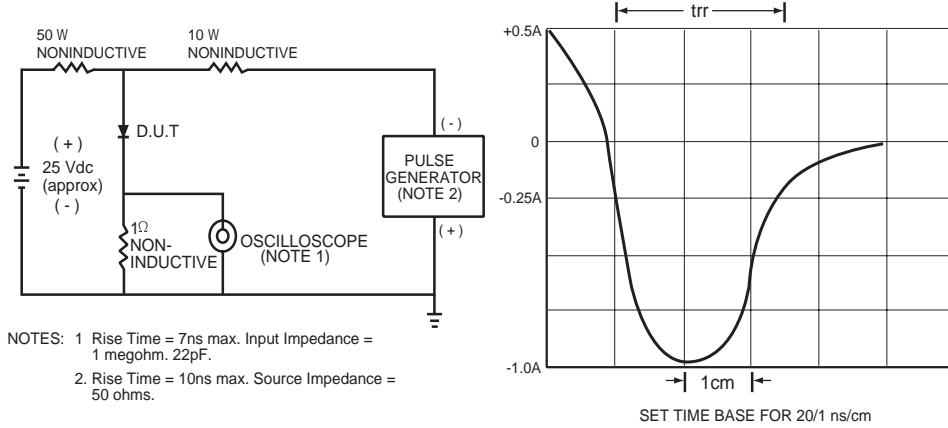


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

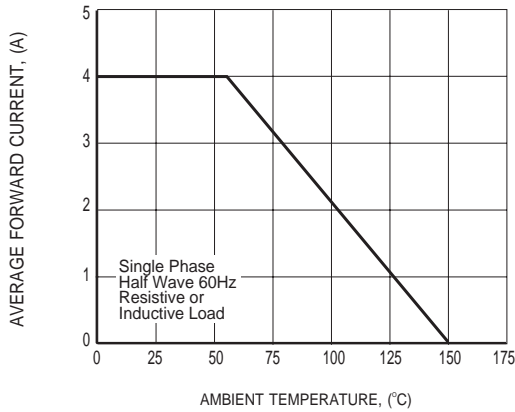


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

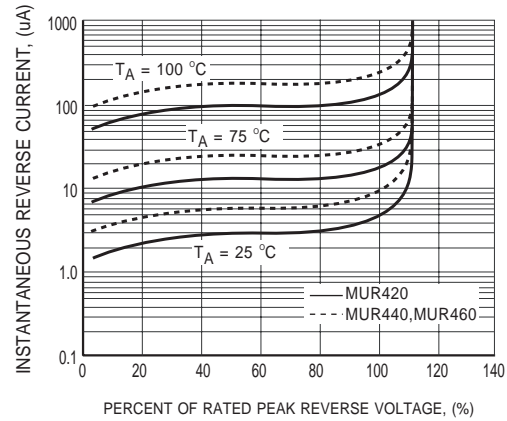


FIG.3 TYPICAL REVERSE CHARACTERISTICS

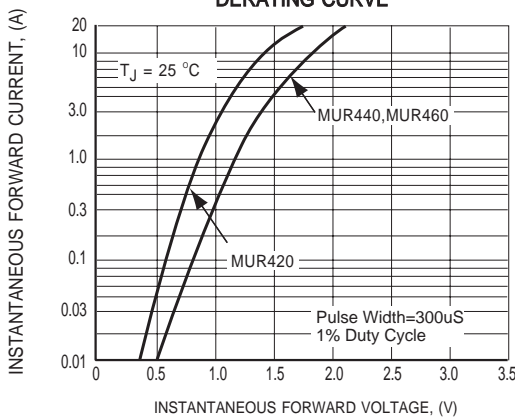


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

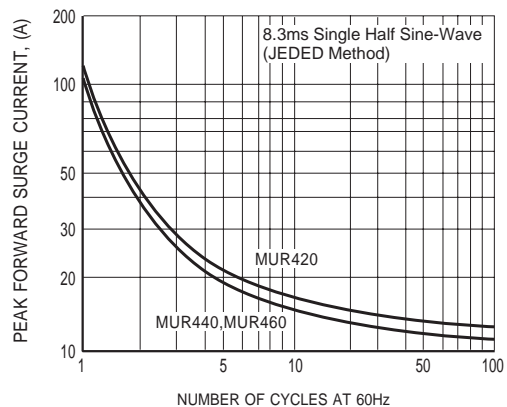


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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