

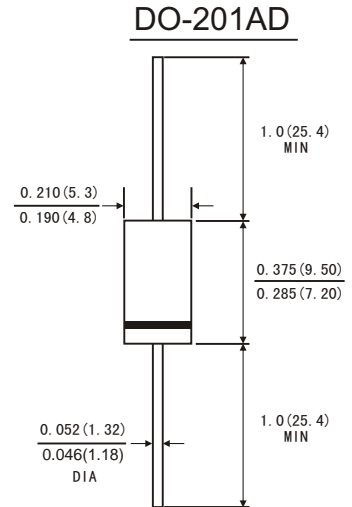
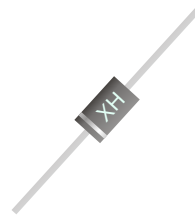


Features

Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
Ultrafast recovery time for high efficiency
Excellent high temperature switching
Glass passivated junction

Mechanical Data

Cases: Molded plastic
Epoxy: UL 94V-0 rate flame retardant
Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
Polarity: Color band denotes cathode
High temperature soldering guaranteed:
260°C/10 seconds/.375",(.9.5mm) lead lengths at 5 lbs.,(2.3kg) tension
Mounting position: Any
Weight: 1.2 grams, 0.045oz.



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

| Type Number | Symbol | MUR420 | MUR440 | MUR460 | Units |
|---|-----------------|-------------|-----------|--------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 200 | 400 | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 140 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 200 | 400 | 600 | V |
| Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length (See Fig. 1) | $I_{(AV)}$ | 4.0 | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 125 | 70 | | A |
| Maximum Instantaneous Forward Voltage @ 4.0A | V_F | 0.89 | 1.28 | 1.70 | v |
| Maximum DC Reverse Current @ $T_C=25^\circ C$ at Rated DC Blocking Voltage @ $T_C=125^\circ C$ (Note 4) | I_R | 5.0 150 | 10 250 | | μA μA |
| Maximum Reverse Recovery Time (Note 2) | T_{rr} | 25 | 50 | | nS |
| Typical Junction Capacitance (Note 1) $T_J = 25^\circ C$ (Fig. 5) | C_j | 65 | | | pF |
| Maximum Forward Recovery Time TFR ($I_F=1.0A$, $di/dt = 100A/\mu s$, Rev. to 1.0V) | T_{FR} | 25 | 50 | | nS |
| Typical Thermal Resistance (Note 3) | $R_{\theta JA}$ | 28 | | | $^\circ C/W$ |
| Operating Temperature Range | T_J | -65 to +150 | | | $^\circ C$ |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | $^\circ C$ |

- Notes:
1. Measured at 1 MHz and Applied Reverse Voltage of 4..0 Volts D.C.
 2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 3. Thermal Resistance from Junction to Ambient, Lead Length = 1/2" on P.C. Board with 1.5" x 1.5" Copper Surface.
 4. Pulse lest: $t_p = 300 \mu s$, Duty Cycle < 2%.

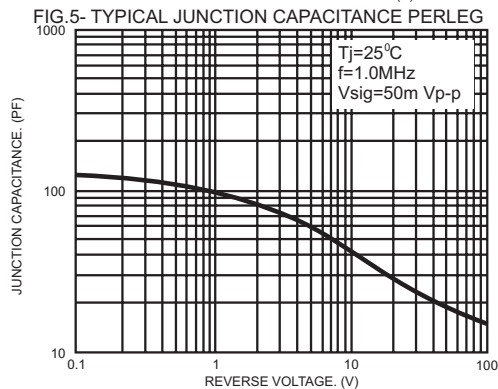
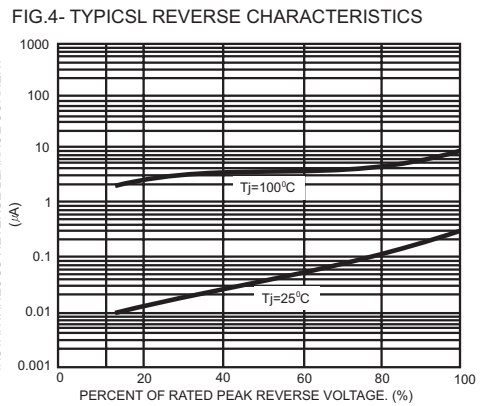
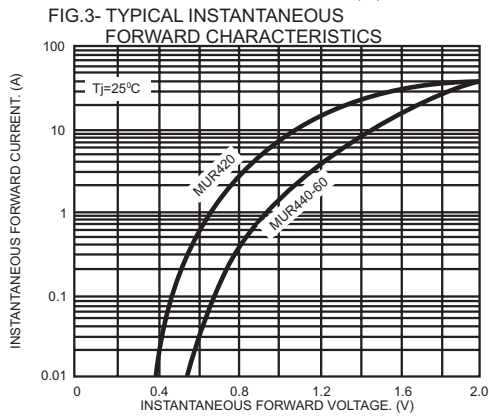
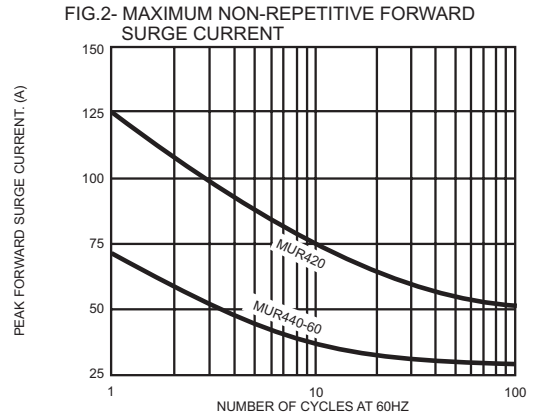
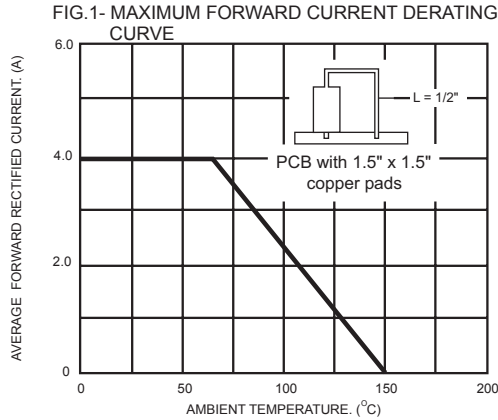


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

