

# MUR410 - MUR420

**PRV : 100 - 200 Volts**  
**Io : 4.0 Amperes**

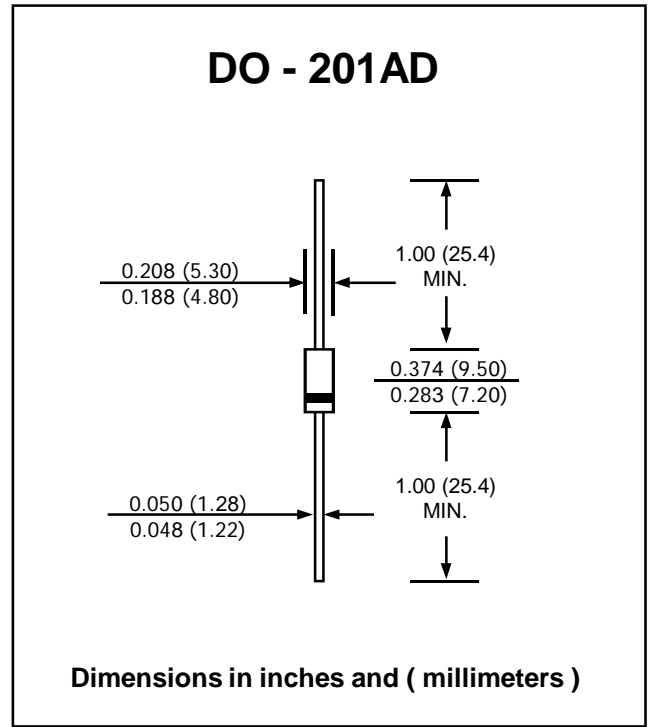
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 1.21 grams

# ULTRAFAST RECOVERY RECTIFIERS DIODES



## 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%.

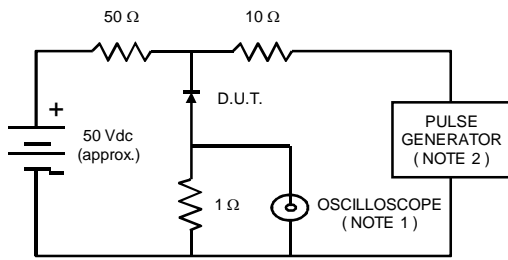
RATING	SYMBOL	MUR410	MUR415	MUR420	UNIT
Maximum Peak Reverse Voltage	$V_{RM}$	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	70	105	140	V
Maximum Reverse Voltage	$V_R$	100	150	200	V
Maximum Average Forward Current $T_a = 80\text{ }^\circ\text{C}$	$I_{F(AV)}$	4.0			A
Maximum Non-repetitive Peak Forward Surge Current	$I_{FSM}$	125			A
Maximum Peak Forward Voltage at $I_F = 4\text{ A}$	$V_F$	0.89			V
Maximum Reverse Current at $V_R = V_{RM}$ $T_j = 25\text{ }^\circ\text{C}$	$I_R$	5.0			$\mu\text{A}$
Maximum Reverse Current at $V_R = V_{RM}$ $T_j = 150\text{ }^\circ\text{C}$	$I_{R(H)}$	150			$\mu\text{A}$
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	25			ns
Junction Temperature Range	$T_J$	-65 to + 175			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175			$^\circ\text{C}$

**Note:**

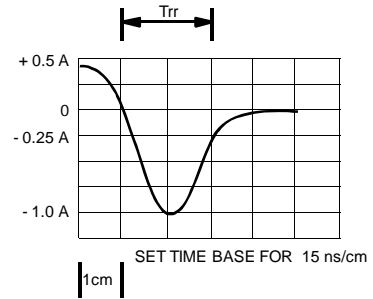
(1) Reverse Recovery Test Conditions :  $I_F = 0.5\text{ A}$ ,  $I_R = 1\text{ A}$  ;  $I_{RR} = 0.25\text{ A}$

**RATING AND CHARACTERISTIC CURVES ( MUR410 - MUR420 )**

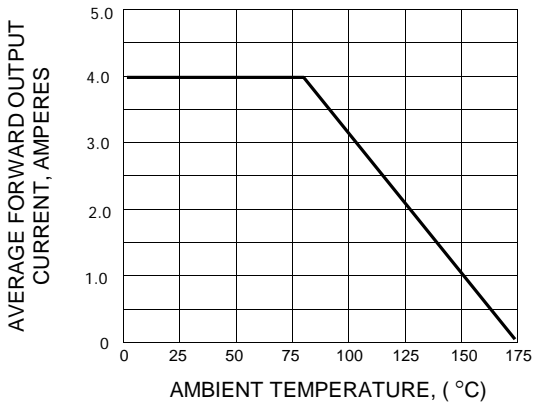
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



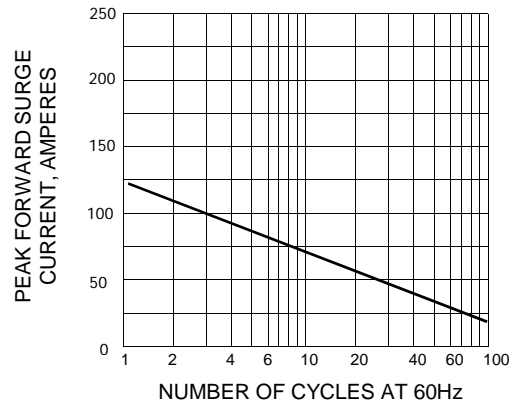
NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.  
 2. Rise Time = 10 ns max., Source Impedance = 50 ohms.  
 3. All Resistors = Non-inductive Types.



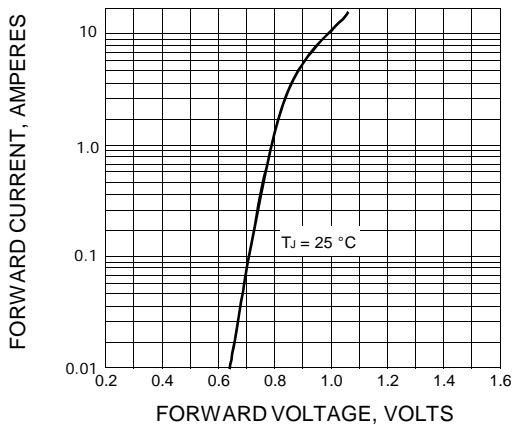
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

