

MUR410S - MUR420S

ULTRAFAST RECOVERY RECTIFIERS DIODES

PRV : 100 - 200 Volts

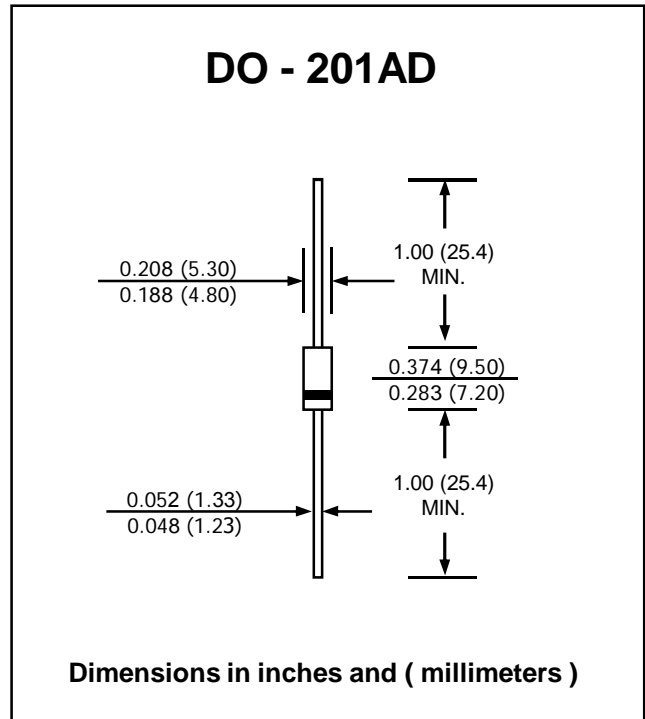
Io : 4.0 Amperes

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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

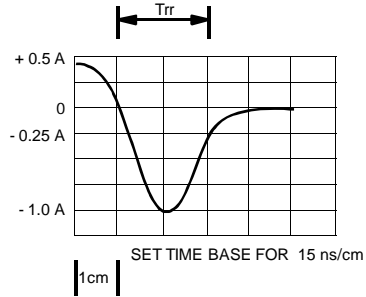
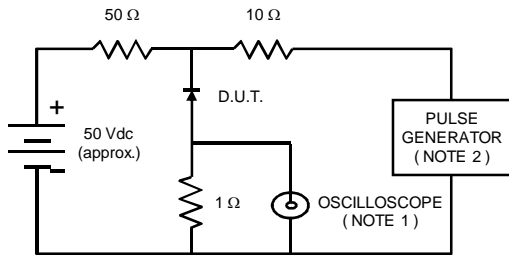
Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATING	SYMBOL	MUR410S	MUR415S	MUR420S	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	0.95			V
Maximum Reverse Current at $V_R = V_{RM}$ $T_j = 25\text{ }^\circ\text{C}$	I_R	5.0			μA
Maximum Reverse Current at $V_R = V_{RM}$ $T_j = 150\text{ }^\circ\text{C}$	$I_{R(H)}$	150			μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35			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 (MUR410S - MUR420S)

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

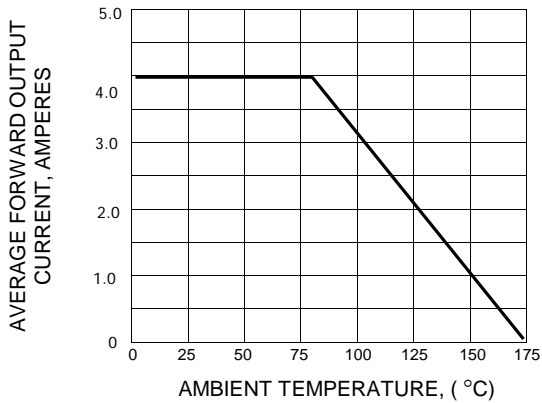


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

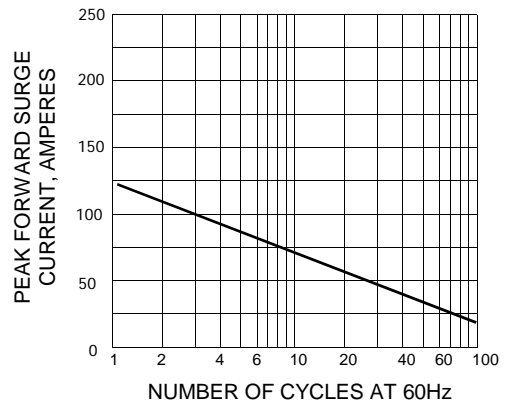


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

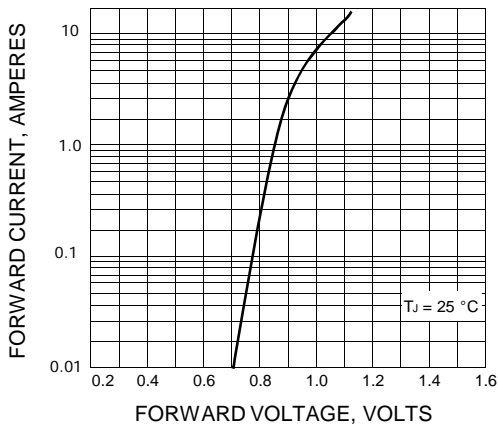


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

