

31DQ06

PRV : 60 Volts
I_o : 3.0 Amperes

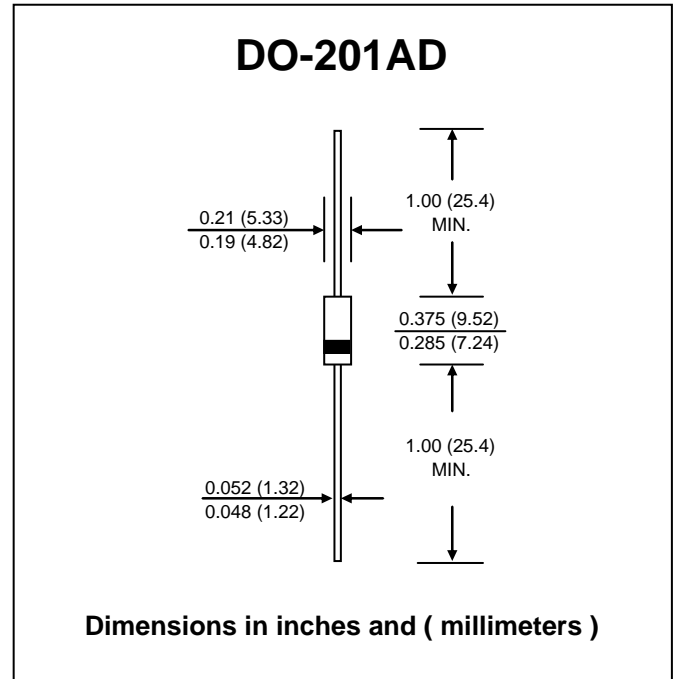
FEATURES :

- * Low forward voltage drop
- * Low power loss
- * High efficiency
- * High surge current capability
- * **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 : 1.1 grams

SCHOTTKY BARRIER RECTIFIER DIODE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum Non-repetitive Peak Reverse Voltage	V_{RSM}	65	V
Maximum Average Rectified Output Current (Half Sine Wave Resistive Load)	$I_{F(AV)}$	1.6 ⁽¹⁾	A
$T_a = 25\text{ }^\circ\text{C}$ $T_a = 43\text{ }^\circ\text{C}$		3.0 ⁽²⁾	
Maximum Non-repetitive Peak Forward Surge Current (Half Sine Wave, 1 cycle)	I_{FSM}	75	A
Maximum Forward Voltage at $I_F = 3.0\text{ A}$, $T_j = 25\text{ }^\circ\text{C}$	V_F	0.58	V
Maximum Reverse Current at $V_R = V_{RRM}$, $T_j = 25\text{ }^\circ\text{C}$	I_R	3.0	mA
Thermal Resistance (Junction to Ambient)	θ_{JA}	80 ⁽¹⁾	$^\circ\text{C/W}$
		34 ⁽²⁾	
Junction Temperature Range	T_J	- 40 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 40 to + 150	$^\circ\text{C}$

Notes :

- (1) Without Fin or P.C. Board
- (2) With Fin 1 : 20x20x1(mm) Copper plates, L = 5 mm, Both Sides

RATING AND CHARACTERISTIC CURVES (31DQ06)

FIG.1 - AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

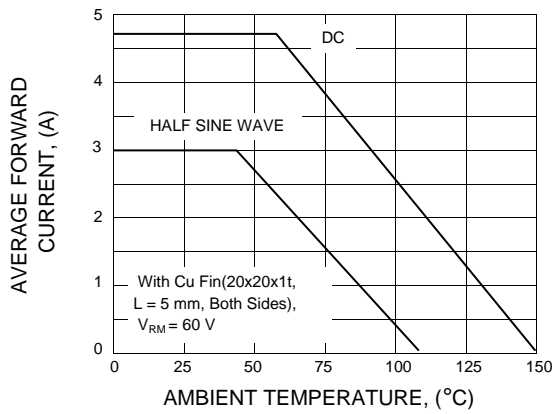


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

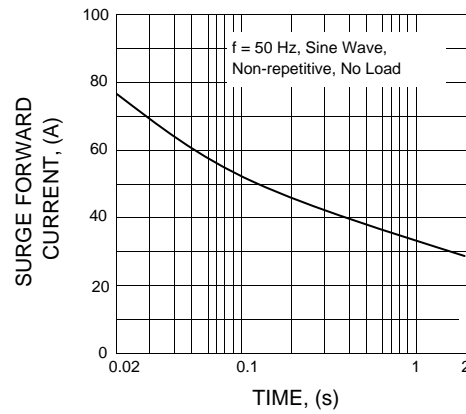


FIG.3 - FORWARD CURRENT VS. FORWARD VOLTAGE

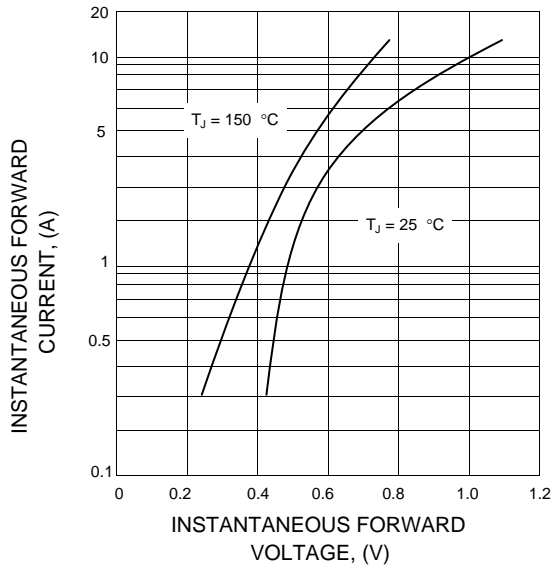


FIG.4 - PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

