

BYM56A - BYM56E

PRV : 200 - 1000 Volts
Io : 3.5 Amperes

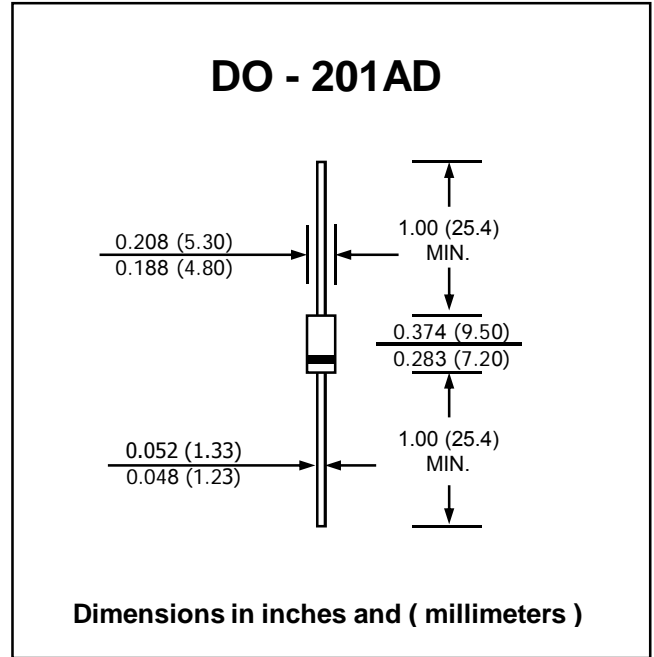
FEATURES :

- * High maximum operating temperature
- * Low leakage current
- * Excellent stability
- * **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 : 1.16 grams

CONTROLLED AVALANCHE RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	BYM 56A	BYM 56B	BYM 56C	BYM 56D	BYM 56E	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	V
Maximum Working Reverse Voltage	V_{RWM}	200	400	600	800	1000	
Maximum Continuous Reverse Voltage	V_R	200	400	600	800	1000	V
Minimum Reverse Breakdown Voltage @ $I_R = 0.1 \text{ mA}$	$V_{(BR)R}$	225	450	650	900	1100	V
Maximum Average Forward Current (See Fig. 1)	$I_{F(AV)}$	3.5					A
Maximum Non-repetitive Peak Forward Surge Current, $t_p = 10 \text{ ms}$ half sine wave	I_{FSM}	80					A
Maximum Forward Voltage	V_F	1.15					V
		0.95					
Maximum Reverse Current	I_R	1.0					μA
	$I_{R(H)}$	150					μA
Typical Reverse Recovery Time (Note 1)	T_{rr}	3					μs
Thermal Resistance - Junction to Ambient (Note 2)	$R_{th j-a}$	75					K / W
Thermal Resistance - Junction to tie-point (lead length = 10 mm)	$R_{th j-tp}$	25					K / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 175					$^{\circ}\text{C}$

Notes :

- (1) Reverse recovery test conditions : $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$
- (2) Device mounted on epoxy-glass printed-circuit board, 1.5mm thick; thickness of copper $\geq 40 \mu\text{m}$.



RATING AND CHARACTERISTIC CURVES (BYM56A - BYM56E)

FIG.1 - MAX. AVERAGE FORWARD CURRENT VS. TIE-POINT TEMPERATURE

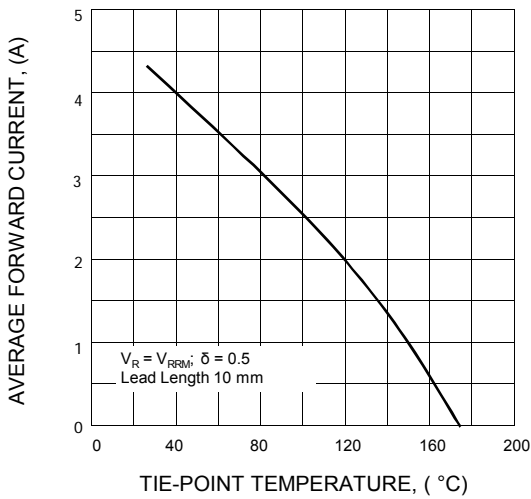


FIG.2 - MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

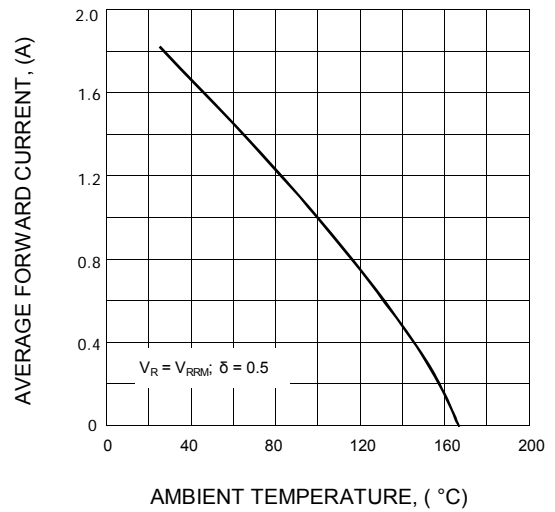


FIG.3 - FORWARD CURRENT VS. FORWARD VOLTAGE; MAXIMUM VALUES

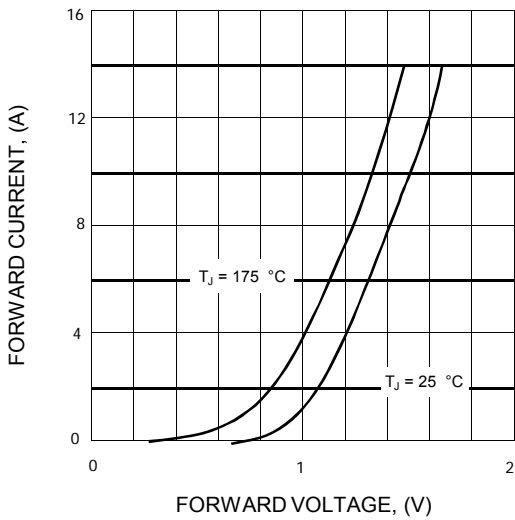


FIG.4 - REVERSE CURRENT VS. JUNCTION TEMPERATURE; MAXIMUM VALUES

