

BYW178

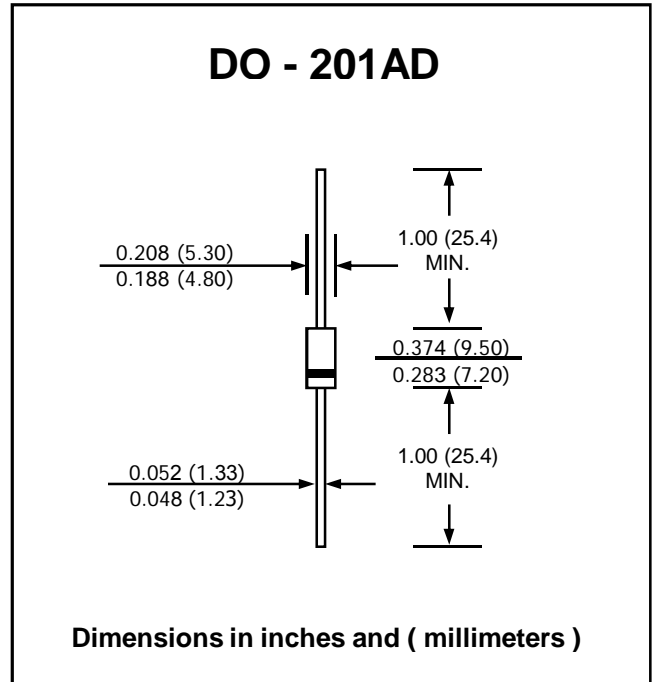
ULTRA FAST AVALANCHE DIODE

FEATURES :

- * Glass passivated junction
- * Soft recovery characteristics
- * Low reverse current
- * Low reverse recovery peak current
- * Very fast reverse recovery time
- * 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.

RATING	SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage	VRRM	800	V
Maximum Reverse Voltage	VR	800	V
Maximum Average Forward Current	IF(AV)	3.0	A
Maximum Peak Forward Surge Current (tp = 10 ms, half sinewave)	IFSM	80	A
Maximum Repetitive Peak Forward Current	IFRM	15	A
Maximum Forward Voltage at IF = 3 A	VF	1.9	V
Maximum Reverse Current at VR = VRRM	IR	1.0	μA
Maximum Reverse Current at VR = VRRM, Tj = 100 °C	IR(H)	20	μA
Thermal Resistance - Junction to Lead (Lead Length 10 mm. TL = constant.)	RthJL	25	K/W
Thermal Resistance - Junction to ambient (on PC board with specing 37.5 mm)	RthJA	70	K/W
Maximum Reverse Recovery Time (Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.)	Trr	60	ns
Junction Temperature Range	TJ	- 65 to + 175	°C
Storage Temperature Range	TSTG	- 65 to + 175	°C

RATING AND CHARACTERISTIC CURVES (BYW178)

FIG. 1 - Max. Average Forward Current vs. Ambient Temperature

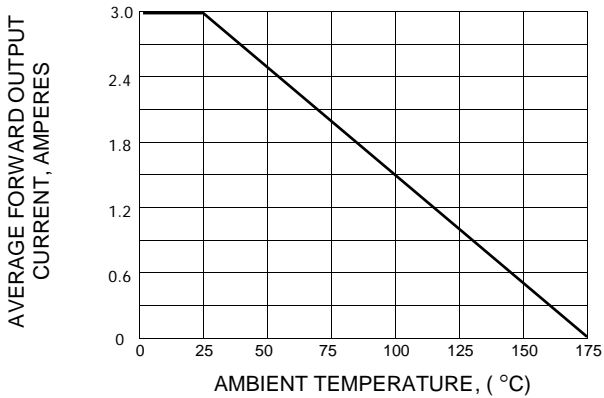


FIG. 2 - Typ. Thermal Resistance vs. Lead Length

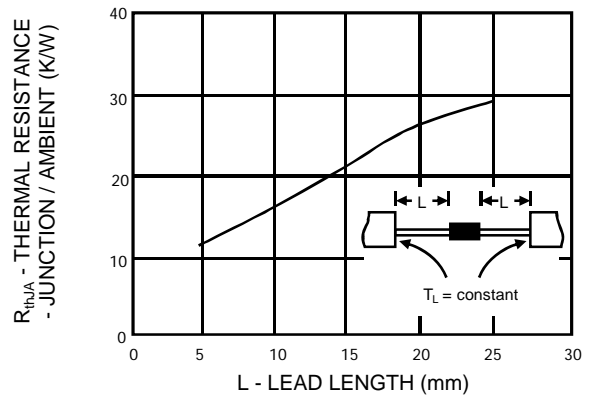


FIG. 3 - Forward Current vs. Forward Voltage

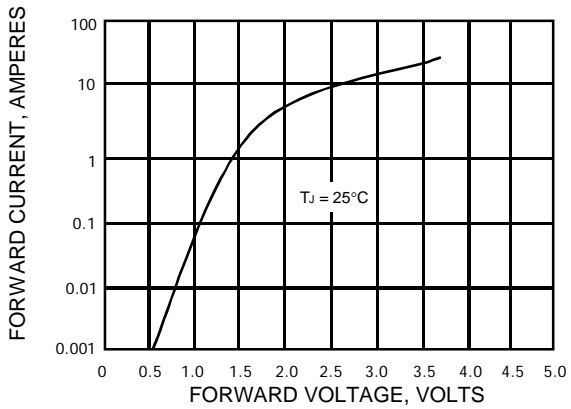


FIG. 4 - Reverse Current vs. Junction Temperature

