

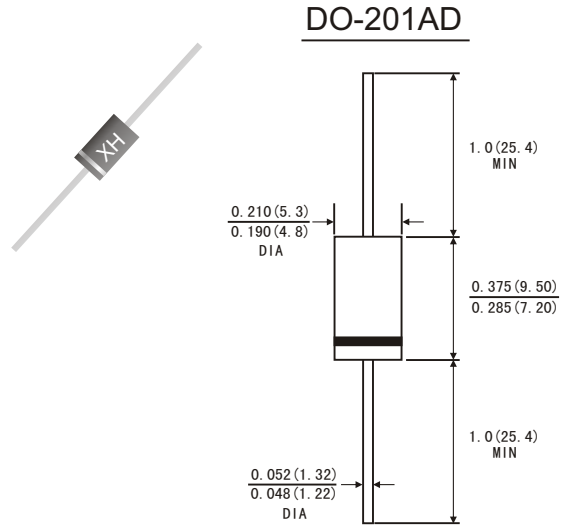


## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Diffused junction
- High current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- Case: JEDEC DO-201AD molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce, 1.18 grams



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		Symbols	BY396	BY397	BY398	BY399	BY399S	Units
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	100	200	400	800	1000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	70	140	280	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	100	200	400	800	1000	Volts
Maximum Average Forward Rectified Current load at T <sub>A</sub> =55°C		I <sub>(AV)</sub>	3.0					Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load at T <sub>A</sub> =25°C		I <sub>FSM</sub>	150					Amps
Maximum Instantaneous Forward Voltage at 3.0 A		V <sub>F</sub>	1.2					Volts
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	10					μA
	T <sub>A</sub> =100°C		150					
Maximum reverse recovery time(Note1)		t <sub>rr</sub>	250					ns
Max.thermal resistance(Note 3)		R <sub>θJA</sub>	30					°C/W
Typical junction capacitance(Note2)		C <sub>J</sub>	60					pF
Operating junction and storage temperature range		T <sub>J</sub> T <sub>STG</sub>	-65 to +150					°C

Note: 1. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

3. Mount on Cu-Pad size 5mmx5mm on P.C.B.



FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

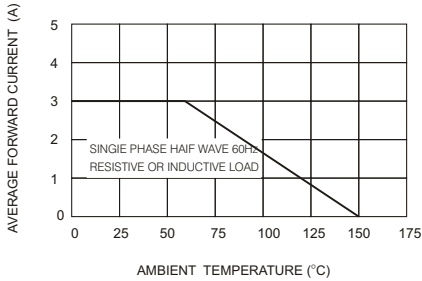


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

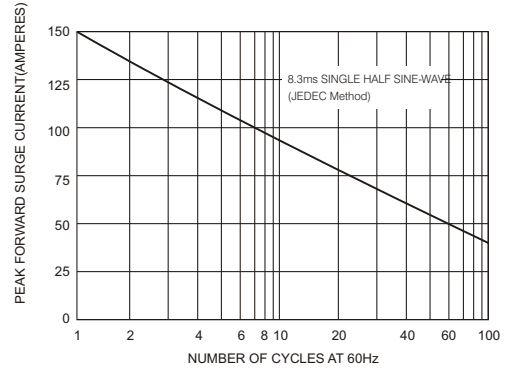


FIG.3-TYPICAL THERMAL IMPEDANCE

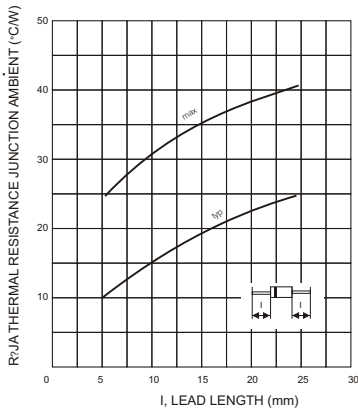


FIG.4-TYPICAL JUNCTION CAPACITANCE

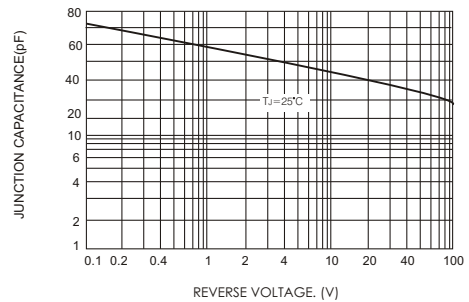


FIG.5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

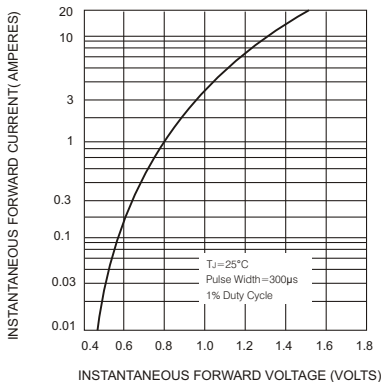


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

