

## BY296 THRU BY299S

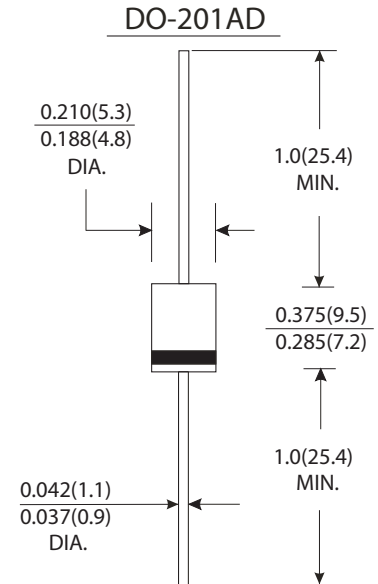
CURRENT 2.0 Amperes  
VOLTAGE 100 to 1000 Volts

### Features

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Fast switching speed
- Diffused junction
- High current capability
- High temperature soldering guaranteed : 250 °C /10 seconds, 0.375"(9.5mm) lead length, 5 lbs.(2.3kg) tension.

### Mechanical Data

- Case : JEDEC DO-201AD molded plastic body
- Terminals : Plated axial lead 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

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

	Symbols	BY296	BY297	BY298	BY299	BY299S	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 R load at T <sub>A</sub> =50 °C	I <sub>(AV)</sub>	2.0					Amps
Peak forward surge current 10ms single half sine-wave superimposed on rated load at load at T <sub>A</sub> =25 °C	I <sub>FSM</sub>	70.0					Amps
Maximum instantaneous forward voltage at 2.0A	V <sub>F</sub>	1.3					Volts
Maximum DC reverse current at rated DC blocking voltage T <sub>A</sub> =25 °C	I <sub>R</sub>	10.0					μA
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	250					ns
Max.thermal resistance	R <sub>θJA</sub>	30					°C/W
Typical junction capacitance (Note 2)	C <sub>J</sub>	16.0					pF
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150					°C

#### Notes:

- (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.

## RATINGS AND CHARACTERISTIC CURVES BY296 THRU BY299S

FIG.1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

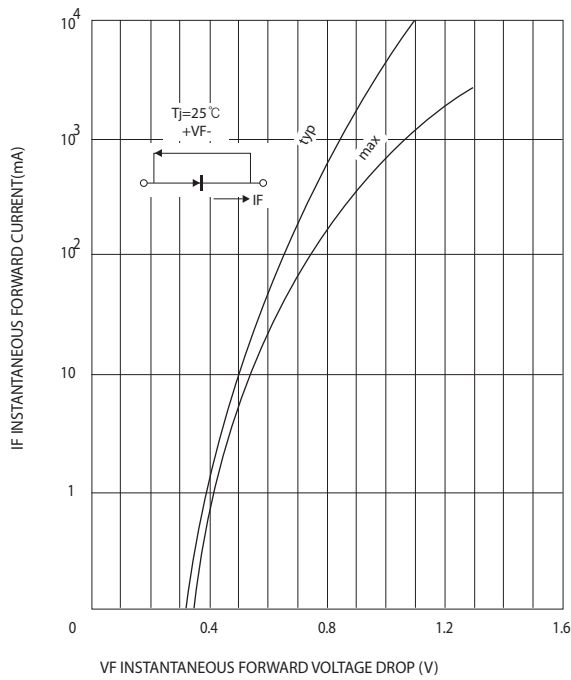


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

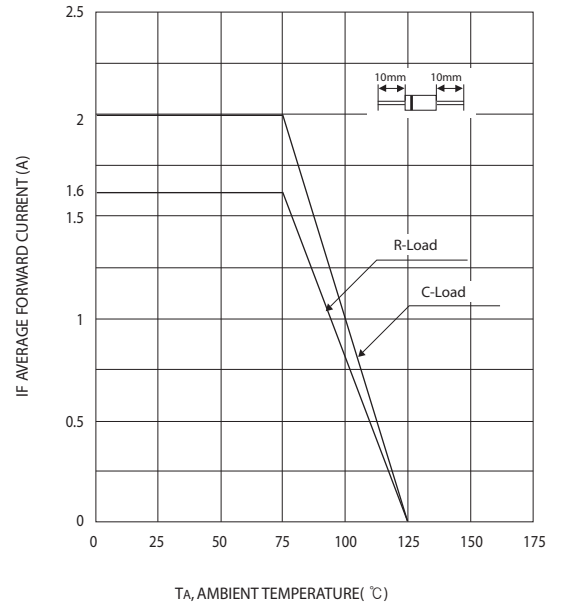


FIG.3-TYPICAL THERMAL IMPEDANCE

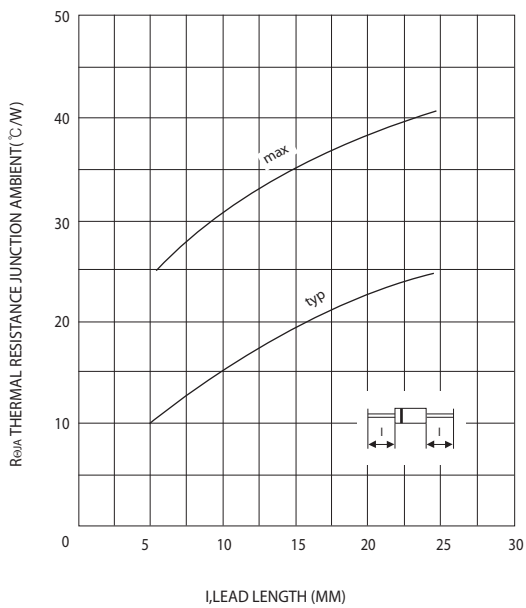


FIG.4-TYPICAL JUNCTION CAPACITANCE

