



BY296 THRU BY299S

Fast Recovery Rectifier

Reverse Voltage 100 to 1000 Volts
Forward Current 2.0Ampere

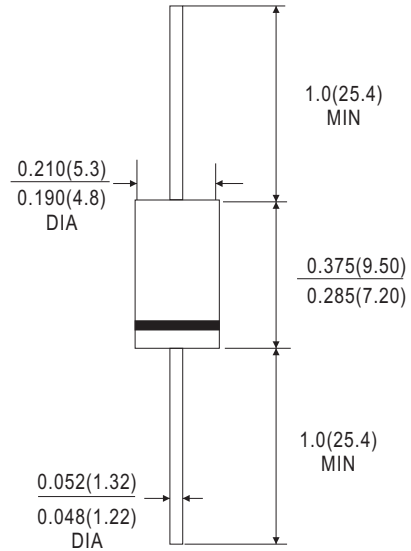
Features

- * Plastic package has Underwriters 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: Molded plastic body
- * Terminals: Plated axial leads,solderable per MIL-STD-750,method 2026
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 1.2 gram

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbols	BY296	BY297	BY298	BY299	BY299S	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	70	140	280	560	700	Volts
Maximum D.C Blocking Voltage	V_{DC}	100	200	400	800	1000	Volts
Maximum Average Forward Rectified Current Rload at $T_A=50^\circ\text{C}$	$I_{(AV)}$	2.0					Amp
Peak Forward Surge Current,10 ms single half sine-wave superimposed on rated load at Rload at $T_A=25^\circ\text{C}$	I_{FSM}	70.0					Amps
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.3					Volts
Maximum DC Reverse Current at rated DC blocking voltage $T_A=25^\circ\text{C}$	I_R	10.0					uA
Maximum reverse recovery time(Note 1)	T_{rr}	250					ns
Max.thermal resistance	$R\theta_{JA}$	30					°C/W
Typical junction capacitance (Note 2)	C_j	16.0					pF
Operating junction and storage temperature range	$T_J T_{STG}$	-65 to +125					°C

Notes:

1. Test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.
2. Measured at 1 MHz and applied reverse voltage of 4.0 Volts.

[Http://www.upm.com.tw](http://www.upm.com.tw)

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RATINGS AND CHARACTERISTIC CURVES (BY296 THRU BY299S)

FIG. 1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

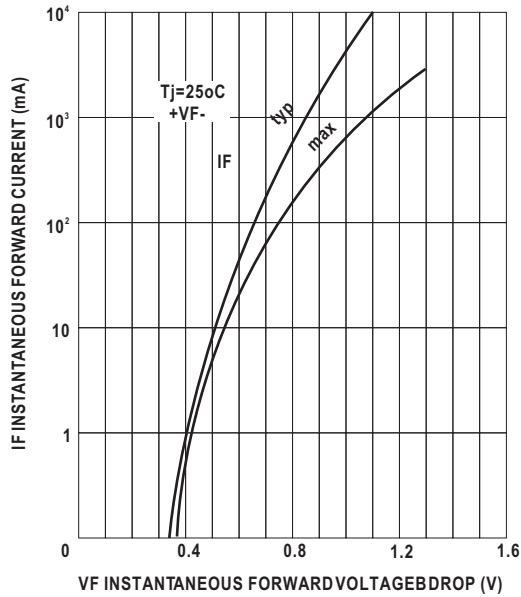


FIG. 2 TYPICAL FORWARD CURRENT DERATING CURVE

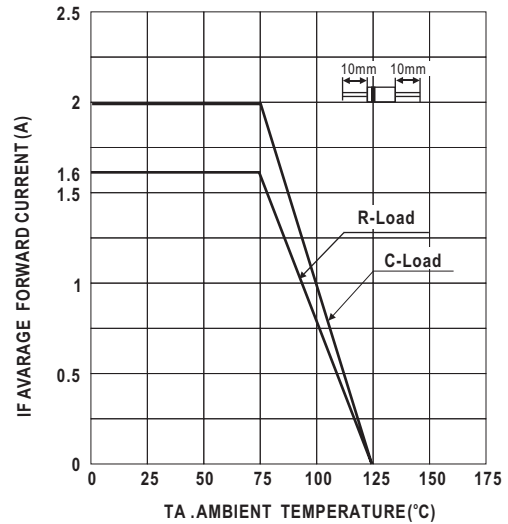


FIG. 3 TYPICAL THERMAL IMPEDANCE

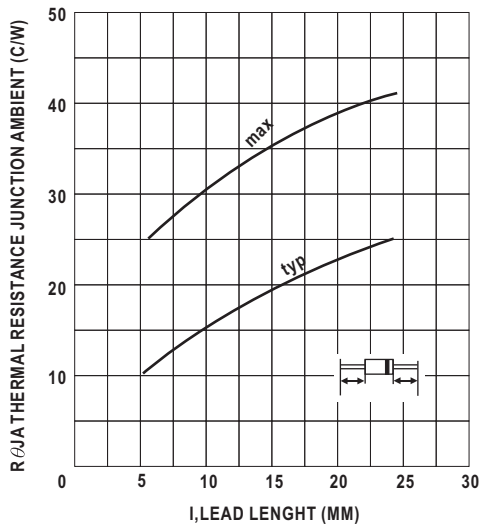


FIG. 4 TYPICAL JUNCTION CAPACITANCE

