

**VOLTAGE RANGE: 50 - 600 V**

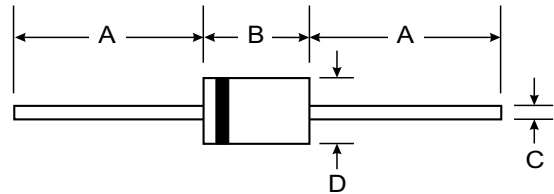
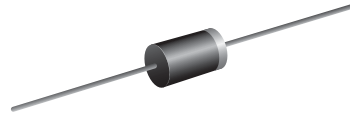
**CURRENT: 3.5 - 3.0 A**

### Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents

### Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BYV28	BYV28	BYV28	BYV28	BYV28	BYV28	BYV28	Unit
		-50	-100	-150	-200	-300	-400	-600	
Maximum recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	V
Maximum average forward rectified current 9.5mm lead length, @T <sub>A</sub> =75°C	I <sub>F(AV)</sub>	3.5						3.0	A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @T <sub>J</sub> =125°C	I <sub>F(SM)</sub>	90.0							A
Maximum instantaneous forward voltage @ I <sub>F</sub> =I <sub>F(AV)</sub>	V <sub>F</sub>	1.02			1.05		1.25		V
Maximum reverse current @T <sub>A</sub> =25°C at rated DC blocking voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	5.0						100.0	μA
Maximum reverse recovery time (Note1)	t <sub>rr</sub>	25			50				ns
Typical junction capacitance (Note2)	C <sub>J</sub>	100							pF
Typical thermal resistance (Note3)	R <sub>θJA</sub>	75							°C/W
Operating junction temperature range	T <sub>J</sub>	- 55 ----- + 150							°C
Storage temperature range	T <sub>STG</sub>	- 55 ----- + 150							°C

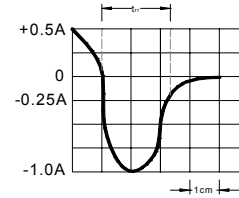
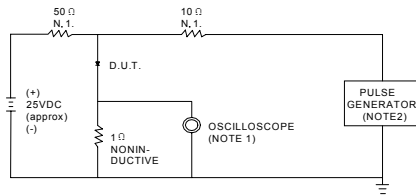
NOTE: 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.1V DC.

3. Thermal resistance from junction to ambient.

## Ratings AND Characteristic Curves BYV28-50--BYV28-600

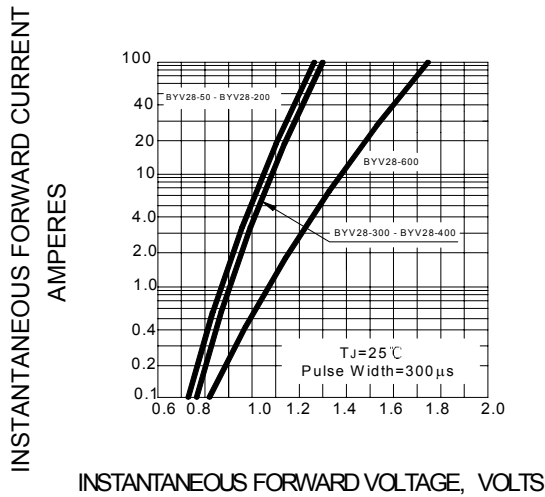
**FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



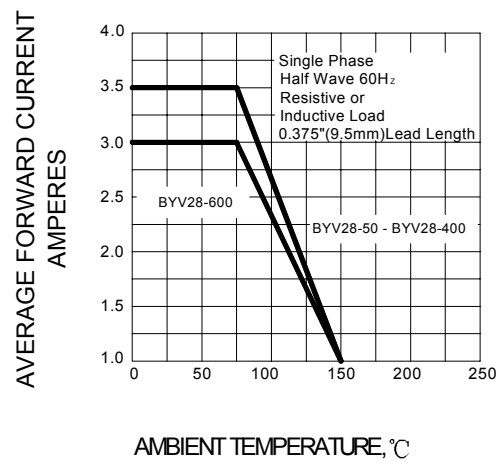
NOTES: 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ, 22pF.  
2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50 Ω.

SET TIME BASE FOR 10 ns/cm

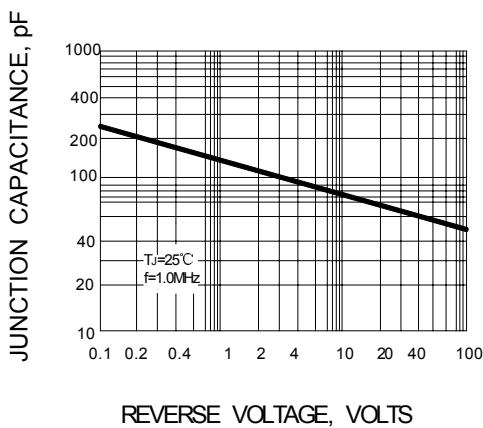
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



**FIG.5- PEAK FORWARD SURGE CURRENT**

