

**VOLTAGE RANGE: 100 - 800V**

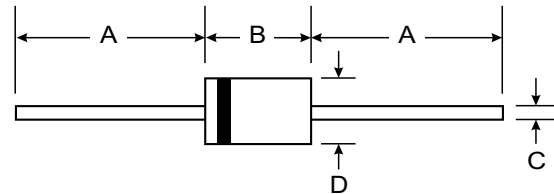
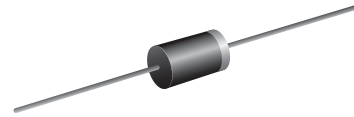
**CURRENT: 3.0 A**

### Features

- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents

### 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: 1.2 grams (approx.)



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

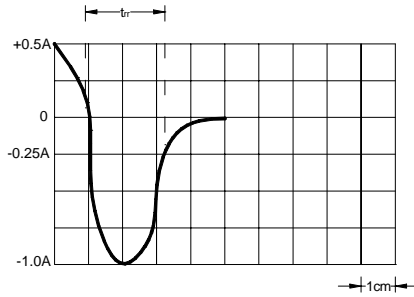
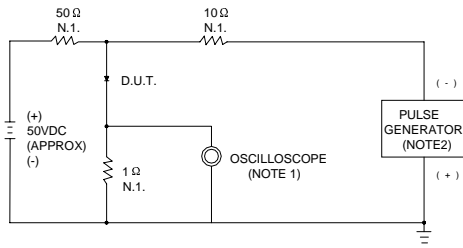
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BY396	BY397	BY398	BY399	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	100	200	400	800	V
Maximum RMS Voltage	VRMS	70	140	280	560	V
Maximum DC Blocking Voltage	VDC	100	200	400	800	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length      T <sub>a</sub> = 50 °C	I <sub>F(AV)</sub>	3.0				A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100				A
Maximum Peak Forward Voltage at I <sub>F</sub> = 2.0 Amps.	V <sub>F</sub>	1.25				V
Maximum DC Reverse Current      T <sub>a</sub> = 25 °C at Rated DC Blocking Voltage      T <sub>a</sub> = 100 °C	I <sub>R</sub>	10				μA
	I <sub>R(H)</sub>	200				μA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	150				ns
Typical Junction Capacitance ( Note 2 )	C <sub>J</sub>	32				pf
Junction Temperature Range	T <sub>J</sub>	- 50 to + 125				°C
Storage Temperature Range	T <sub>STG</sub>	- 50 to + 150				°C

#### Notes :

- ( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>

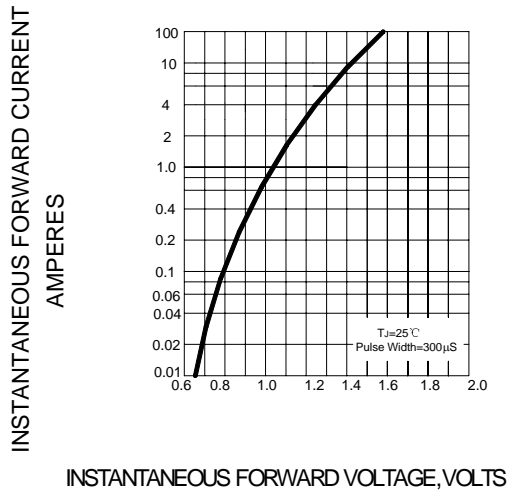
**FIG.1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



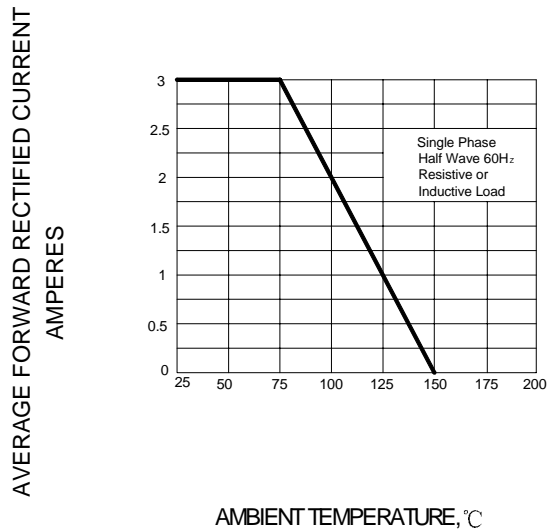
NOTES: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1MΩ, 22pF  
 2. RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

SET TIME BASE FOR 50/100 ns /cm

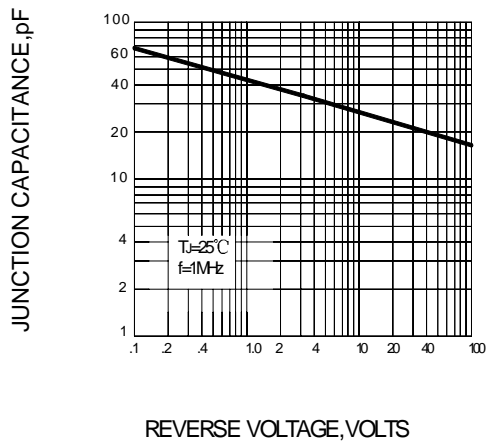
**FIG.2 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.3 – FORWARD DERATING CURVE**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



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

