

VOLTAGE RANGE: 50 - 1000V

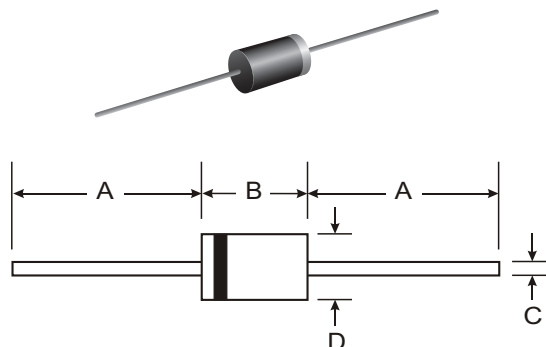
CURRENT: 5.0 A

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability

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-201		
Dim	Min	Max
A	25.40	—
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

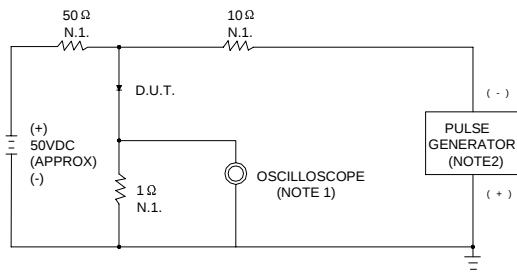
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	BY500-50	BY500-100	BY500-200	BY500-400	BY500-600	BY500-800	BY500-1000	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_R(RMS)$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) $@T_A = 75^\circ\text{C}$	I_O	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Forward Voltage $@I_F = 5.0A$	V_{FM}	1.3							V
Peak Reverse Current $@T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage $@T_A = 100^\circ\text{C}$	I_{RM}	10 1000							μA
Maximum reverse recovery time (Note1)	t_{rr}	200							ns
Typical Junction Capacitance (Note 2)	C_j	55							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	15							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to +125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V D.C.



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



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

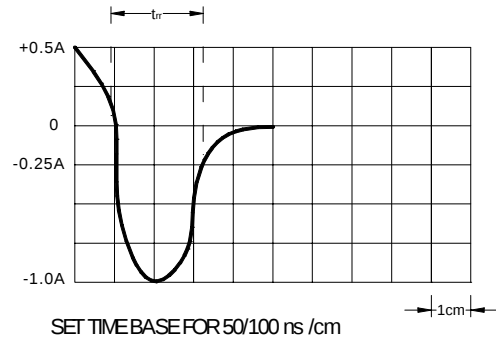


FIG.2 –FORWARD DERATING CURVE

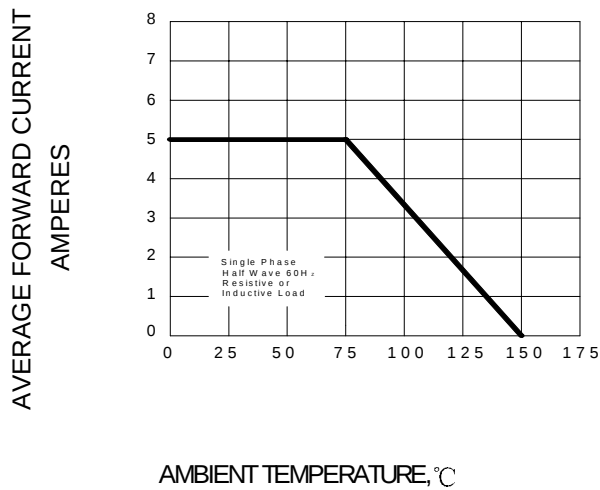


FIG.3 –PEAK FORWARD SURGE CURRENT

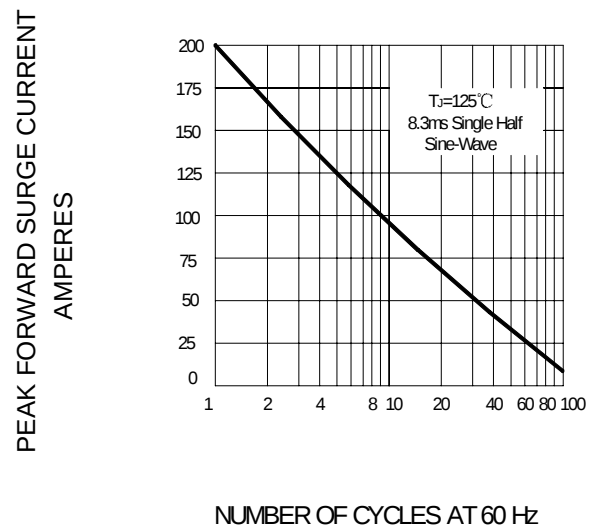


FIG.4-TYPICAL FORWARD CHARACTERISTIC

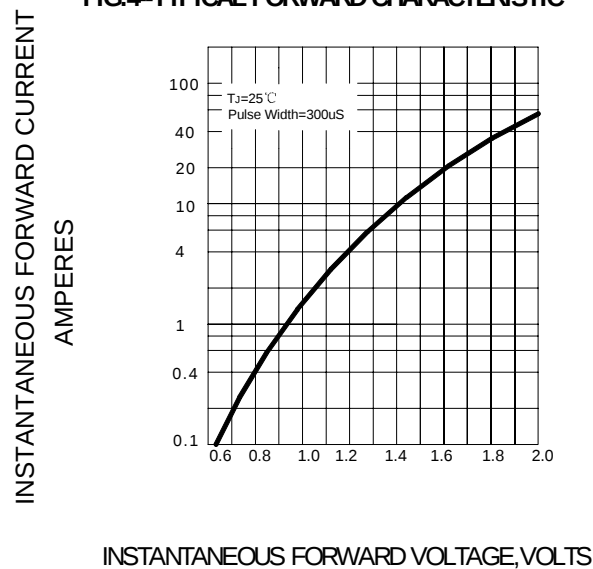


FIG.5- TYPICAL JUNCTION CAPACITANCE

