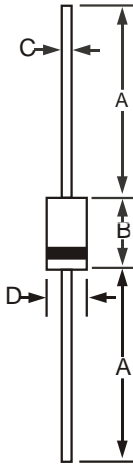


## BY550-50 THRU BY550-1000

**STANDARD RECOVERY RECTIFIER**  
**VOLTAGE - 50 TO 1000 VOLTS    CURRENT - 5.0 AMPERES**



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		

### FEATURES

- High surge current capability
- Low reverse leakage
- Low forward voltage drop
- 5.0 Amperes operation  $T_A = 60^\circ\text{C}$  with no thermal runaway
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Exceeds environmental standards of MIL-STD-19500/228

### MECHANICAL DATA

Case: DO-201AD molded plastic  
 Terminals: Plated axial leads, solderable per MIL-STD-202, Method 208  
 Polarity: Color band denotes cathode end  
 Weight: 0.04 ounce, 1.2 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified  
 Single phase, half-wave, 60 Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

	SYMBOL	BY550-	BY550-	BY550-	BY550-	BY550-	BY550-	BY550-	UNITS
		50	100	200	400	600	800	1000	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length at $T_A = 60^\circ\text{C}$	$I_{(AV)}$	5.0							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	$I_{FSM}$	300							Amps
Maximum Instantaneous Forward Voltage at 5.0A	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	$I_R$	20 500							$\mu\text{A}$
Typical Junction Capacitance (NOTE 1)	$C_J$	50							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	30							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 55 to + 150							$^\circ\text{C}$

**NOTES:**

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length P.C.B. mounted



# BY550-50 THRU BY550-1000

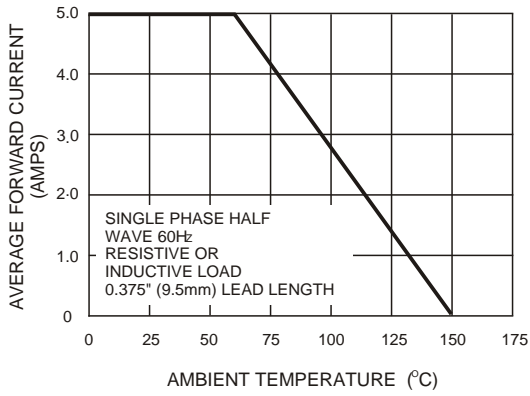


Figure 1. Typical Forward Current Derating Curve

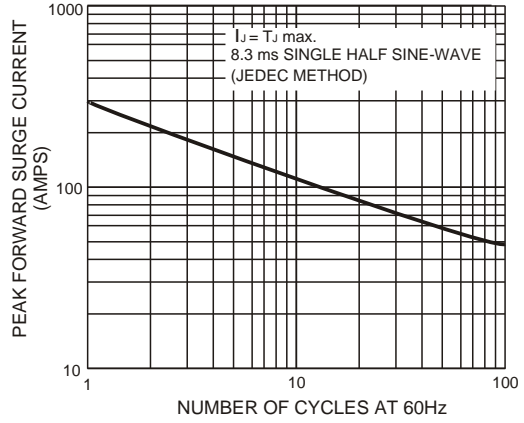


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

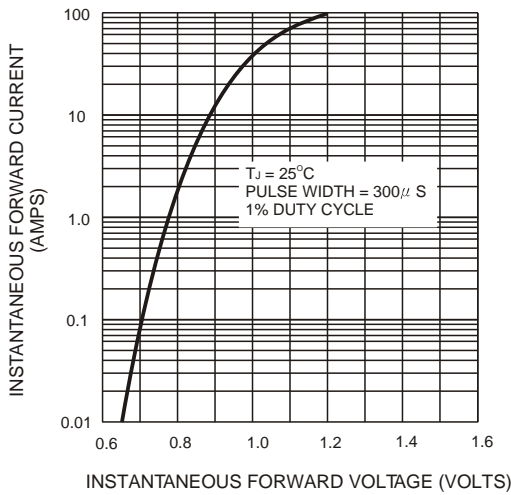


Figure 3. Typical Instantaneous Forward Characteristics

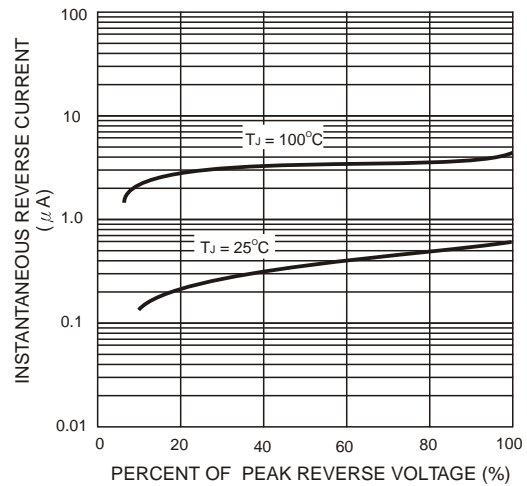


Figure 4. Typical Reverse Characteristics

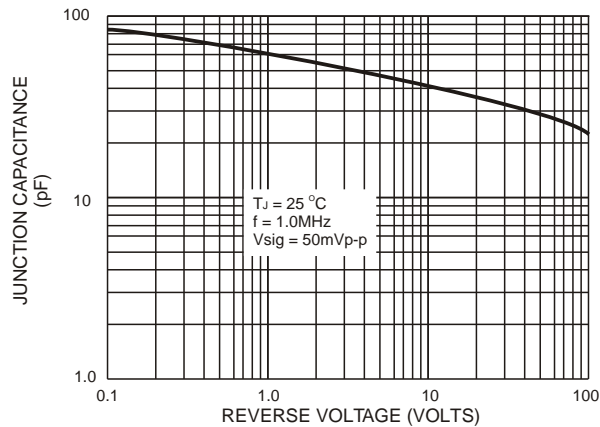


Figure 5. Typical Junction Capacitance