

# BY550-50 ~ BY550-1000

# SILICON RECTIFIER DIODES

**PRV : 50 - 1000 Volts**

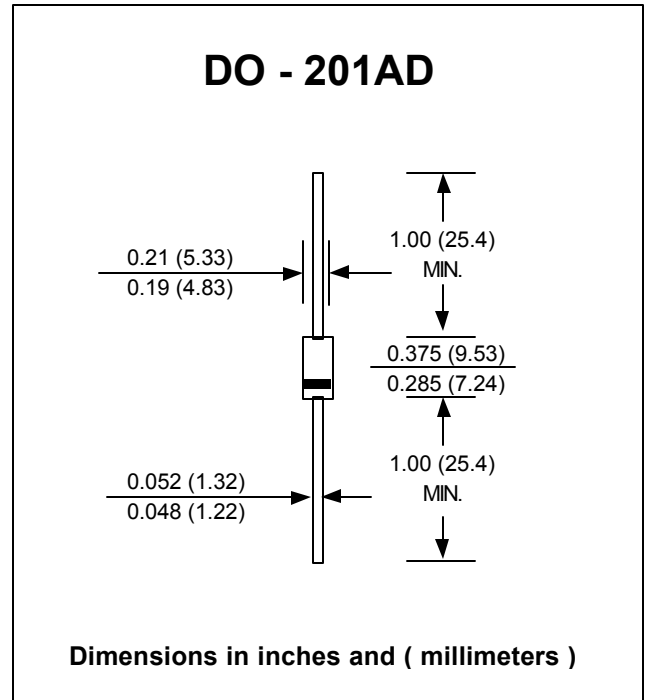
**Io : 5.0 Amperes**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop

### 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 : 1.21 grams



### 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%.

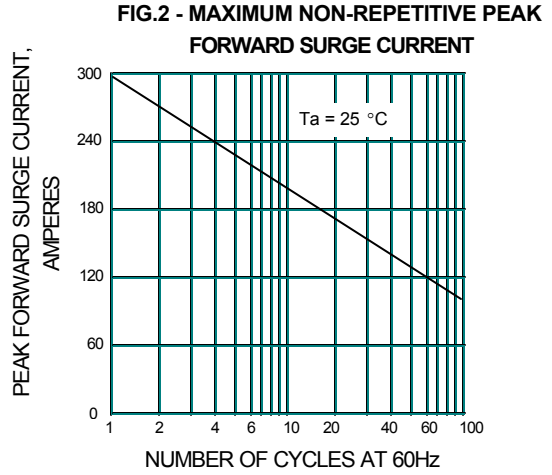
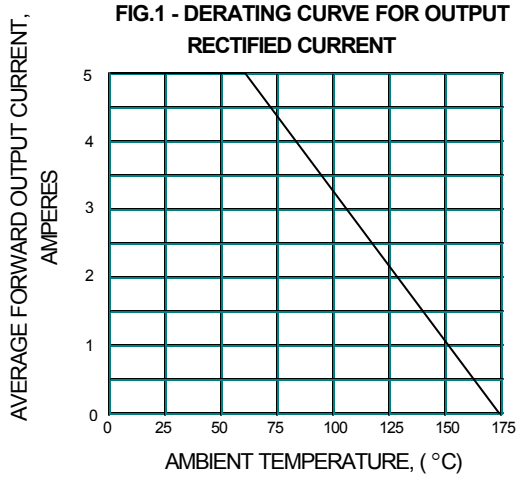
RATING	SYMBOL	BY550 - 50	BY550 - 100	BY550 - 200	BY550 - 400	BY550 - 600	BY550 - 800	BY550 - 1000	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 60°C	I <sub>F</sub>	5.0							Amps.
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300							Amps.
Maximum Forward Voltage at I <sub>F</sub> = 5.0 Amps.	V <sub>F</sub>	0.95							Volts
Maximum DC Reverse Current Ta = 25 °C at rated DC Blocking Voltage Ta = 100 °C	I <sub>R</sub>	20							μA
	I <sub>R(H)</sub>	50							μA
Typical Junction Capacitance (Note1)	C <sub>J</sub>	50							pF
Typical Thermal Resistance (Note2)	R <sub>θJA</sub>	18							°C/W
Junction Temperature Range	T <sub>J</sub>	- 65 to + 175							°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175							°C

#### Notes :

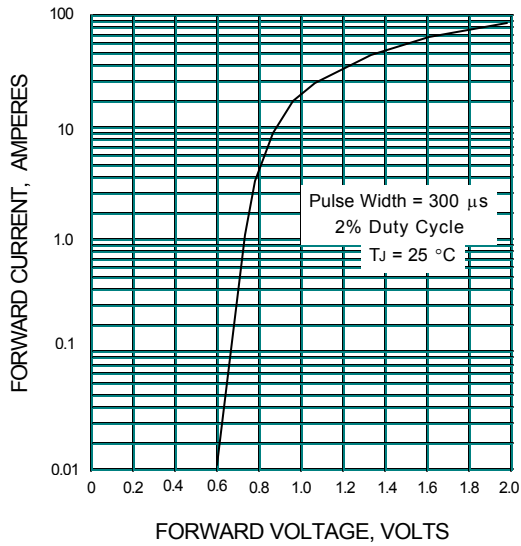
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>DC</sub>
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**UPDATE : MAY 27, 1998**

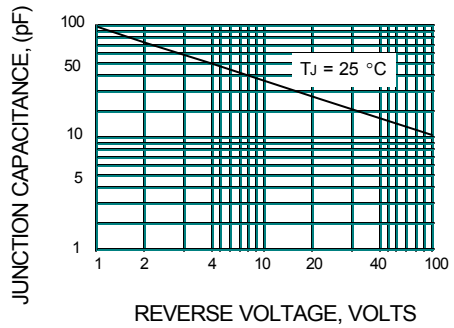
## RATING AND CHARACTERISTIC CURVES ( BY550-50 - BY550-1000 )



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

