

## BY550-50G ~ BY550-1000G

## GLASS PASSIVATED JUNCTION SILICON RECTIFIER DIODES

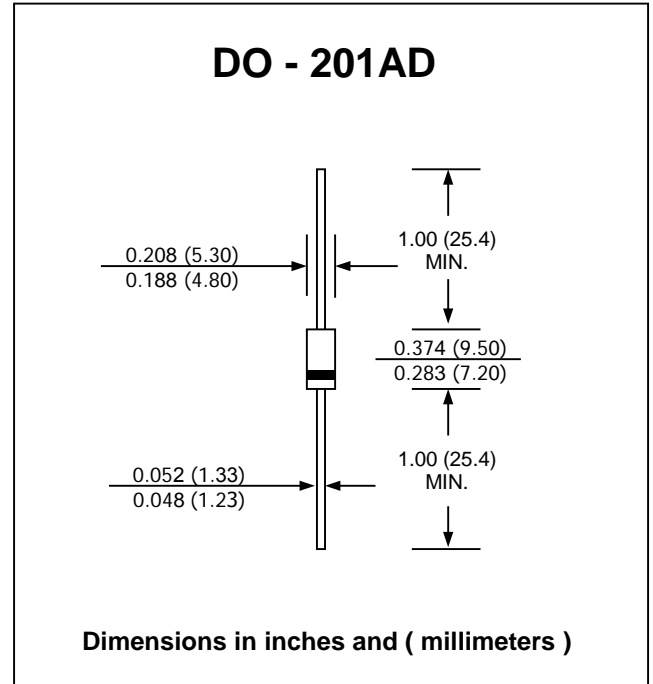
**PRV : 50 - 1000 Volts**  
**Io : 5.0 Amperes**

### FEATURES :

- \* Glass passivated chip
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : DO-201AD Molded plastic
- \* Epoxy : UL94V-0 rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.929 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%.

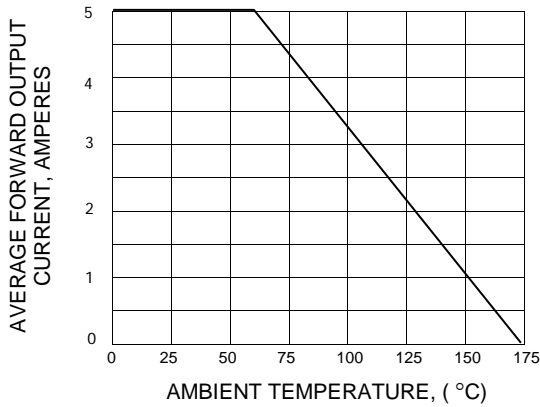
RATING	SYMBOL	BY550 - 50G	BY550 - 100G	BY550 - 200G	BY550 - 400G	BY550 - 600G	BY550 - 800G	BY550 - 1000G	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 60°C	I <sub>F</sub>	5.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200							A
Maximum Forward Voltage at I <sub>F</sub> = 5.0 Amps.	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current at rated DC Blocking Voltage	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 :

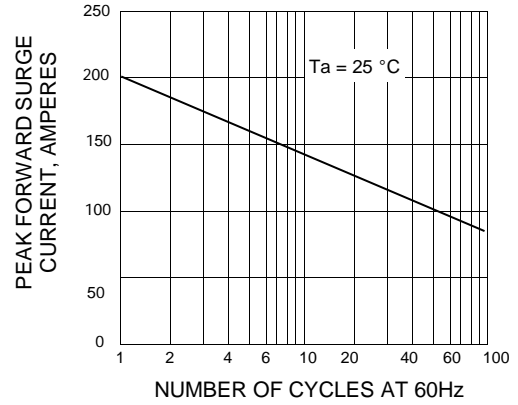
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- (2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES ( BY550-50G - BY550-1000G )**

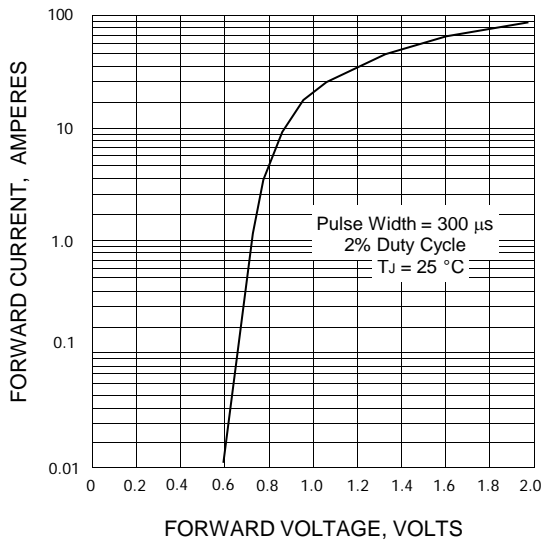
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



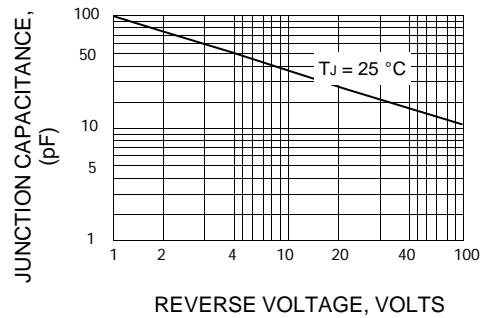
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

