

BY550-50 ~ BY550-1000

SILICON RECTIFIER DIODES

PRV : 50 - 1000 Volts

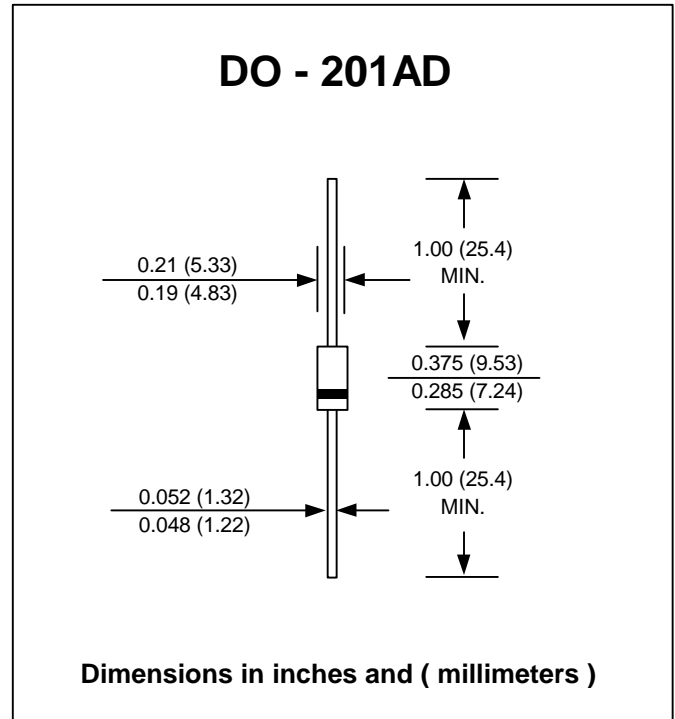
Io : 5.0 Amperes

FEATURES :

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

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 : 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 - 50	BY550 - 100	BY550 - 200	BY550 - 400	BY550 - 600	BY550 - 800	BY550 - 1000	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 60^\circ\text{C}$	I_F	5.0							A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Maximum Forward Voltage at $I_F = 5.0$ Amps.	V_F	1.1							V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	20							μA
	$I_{R(H)}$	50							μA
Typical Junction Capacitance (Note1)	C_J	50							pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	18							$^\circ\text{C/W}$
Junction Temperature Range	T_J	- 65 to + 175							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 175							$^\circ\text{C}$

Notes :

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

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

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

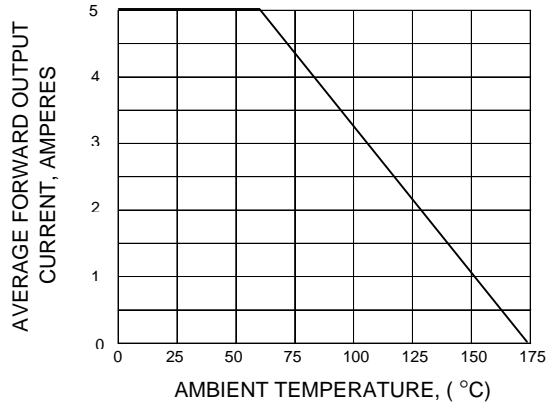


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

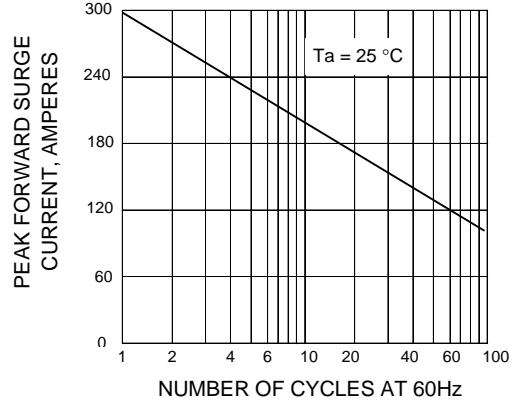


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

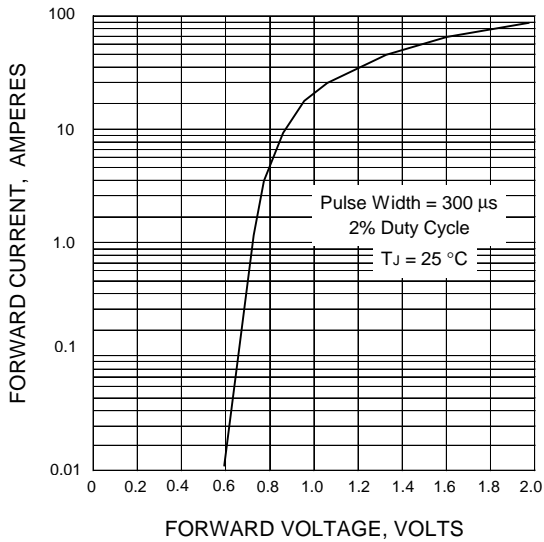


FIG.4 - TYPICAL JUNCTION CAPACITANCE

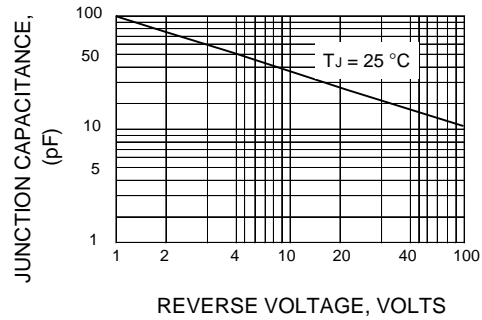


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

