

RGP30A - RGP30M

FAST SWITCHING RECTIFIERS

PRV : 50 - 1000 Volts

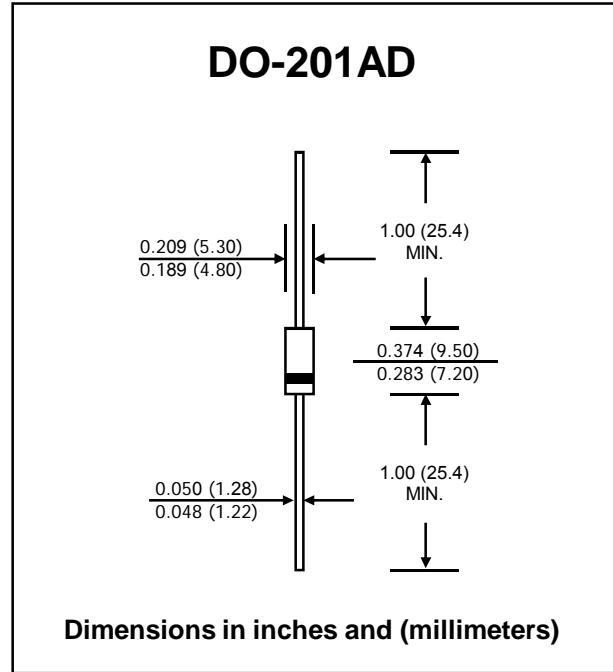
Io : 3.0 Ampere

FEATURES :

- * High forward surge capability
- * High reliability
- * Low leakage current
- * Fast switching for high efficiency
- * **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 : 1.21 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	RGP 30A	RGP 30B	RGP 30D	RGP 30G	RGP 30J	RGP 30K	RGP 30M	UNIT
Maximum Recurrent 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 at $T_a = 55\text{ }^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load	I_{FSM}	125							A
Maximum Instantaneous Forward Voltage at $I_F = 3.0\text{ A}$	V_F	1.3							V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$	I_R	5.0							μA
at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_{R(H)}$	100							μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	150					250	500	ns
Typical Junction Capacitance (Note 2)	C_J	60							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175							$^\circ\text{C}$

Notes :

- (1) Reverse Recovery Test Conditions : $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}
- (3) Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES (RGP30A - RGP30M)

FIG.1- FORWARD CURRENT DERATING CURVE

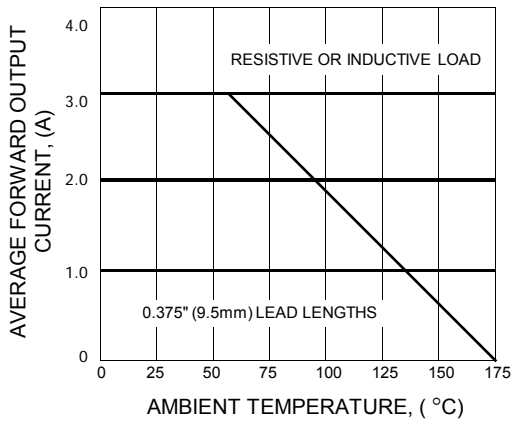


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

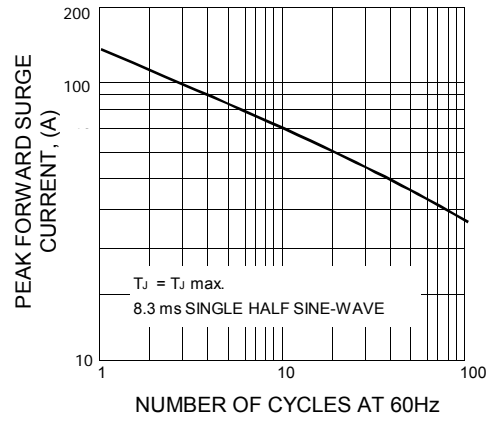


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

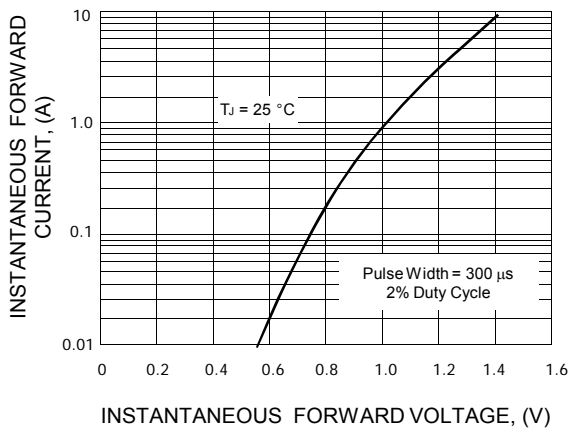


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

