Certificate Number: Q10561 Certificate Number: E17276

RGP30A - RGP30M

FAST SWITCHING RECTIFIERS

PRV : 50 - 1000 Volts
Io : 3.0 Ampere

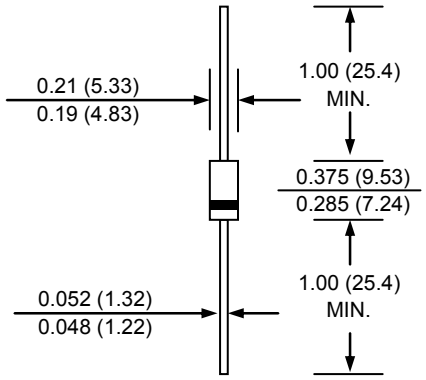
FEATURES :

* 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-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

DO - 201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specifie.

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 Ta= 55 °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 A	V_F	1.3							V
Maximum DC Reverse Current Ta= 25 °C	I_R	5.0							µA
at Rated DC Blocking Voltage Ta= 150 °C	$I_{R(H)}$	100							µA
Maximum Reverse Recovery Time (Note 1)	Trr	150					250	500	ns
Typical Junction Capacitance (Note 2)	C_J	60							pF
Typical Thermal Resistance (Note 3)	$R_{\Theta JA}$	20							°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 65 to + 175							°C

Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 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

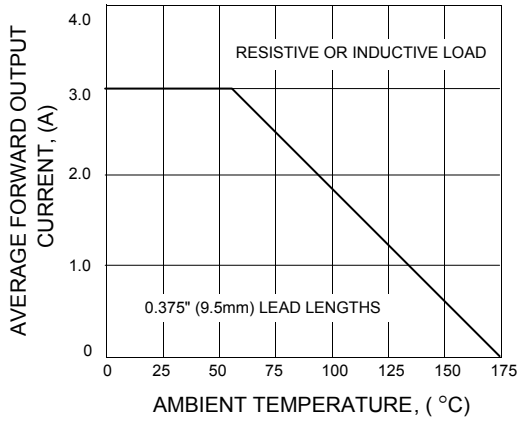


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

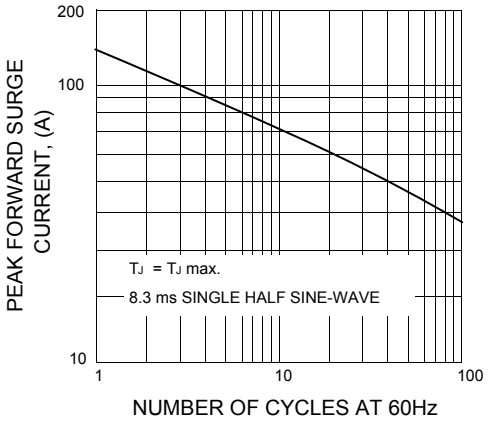


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

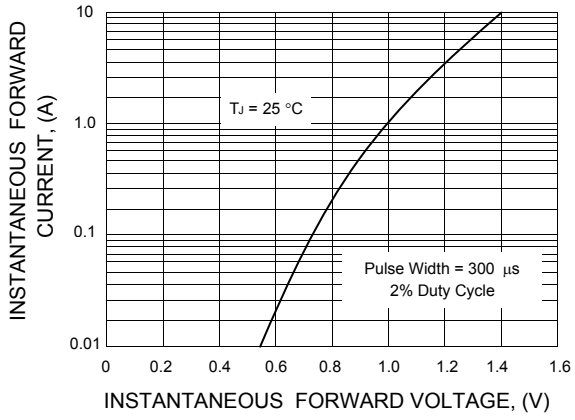


FIG.4 - TYPICAL REVERSE CHARACTERISTICS