

# RGP20A - RGP20J

**PRV : 50 - 600 Volts**  
**Io : 2.0 Amperes**

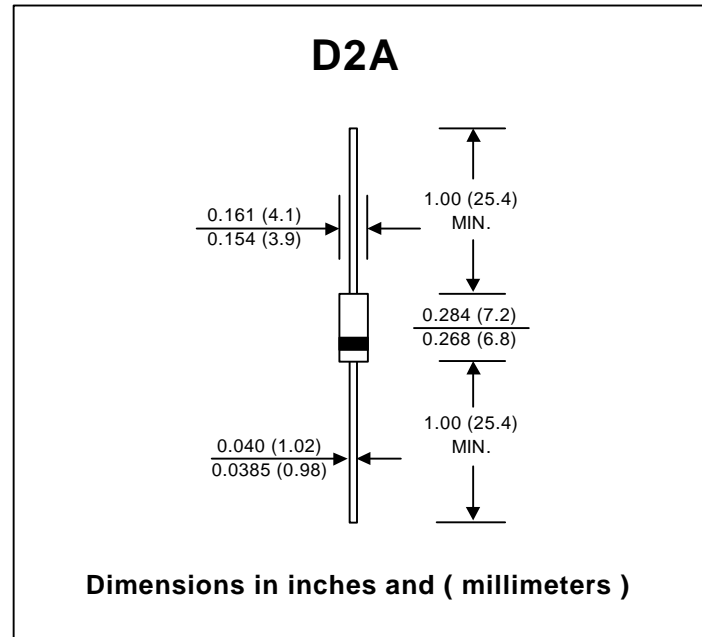
## FEATURES :

- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* **Pb / RoHS Free**

## MECHANICAL DATA :

- \* Case : D2A 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 : 0.645 gram

## FAST RECOVERY RECTIFIERS



## 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%.

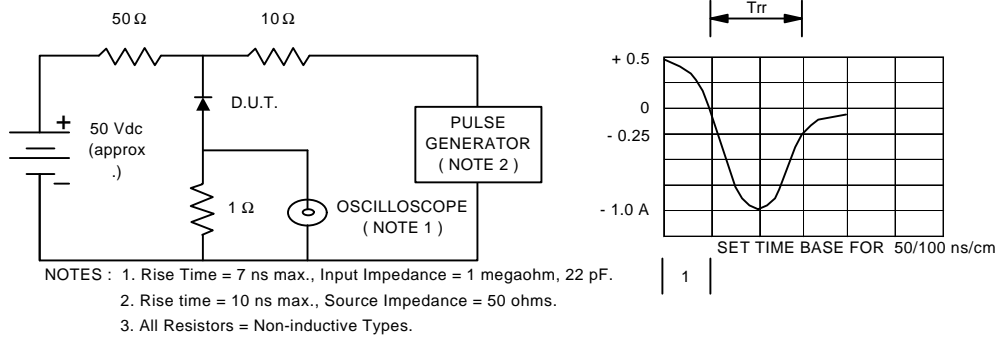
RATING	SYMBOL	RGP 20A	RGP 20B	RGP 20D	RGP 20G	RGP 20J	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	I <sub>F(AV)</sub>	2.0					A
Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80					A
Maximum Peak Forward Voltage at I <sub>F</sub> = 2.0 A	V <sub>F</sub>	1.3					V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 150 °C	I <sub>R</sub>	5.0					μA
	I <sub>R(H)</sub>	100					μA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	150				250	ns
Typical Junction Capacitance ( Note 2 )	C <sub>J</sub>	35					pf
Typical Thermal Resistance ( Note 3 )	R <sub>θJA</sub>	22					°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 :

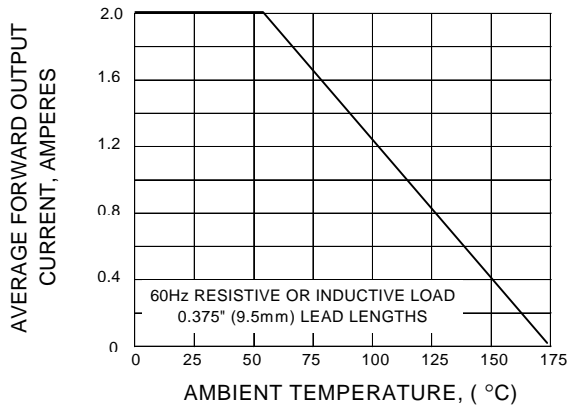
- ( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 V<sub>DC</sub>
- ( 3 ) Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

## RATING AND CHARACTERISTIC CURVES ( RGP20A - RGP20J )

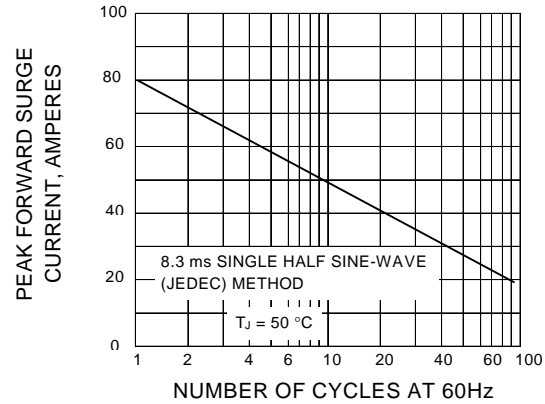
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



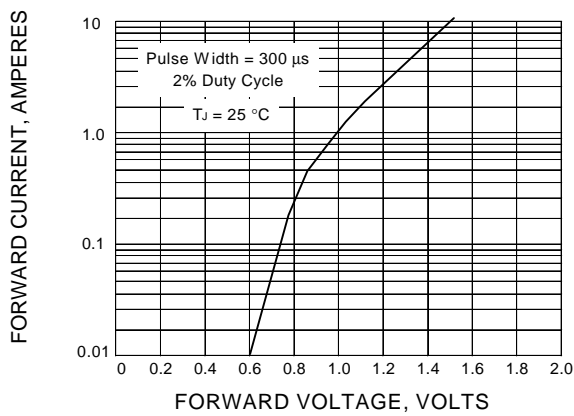
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

