

RGP02-12E // 20E

PRV : 1200 - 2000 Volts
Io : 0.5 Ampere

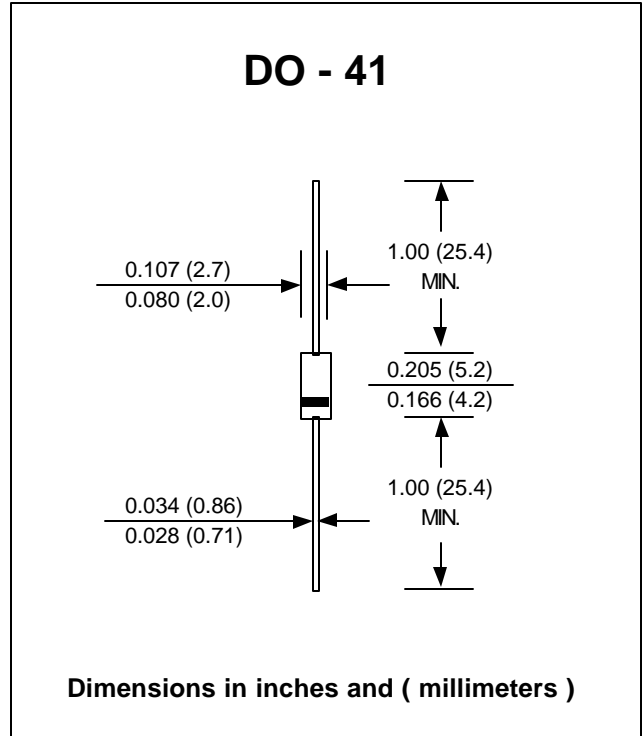
FEATURES :

- * Glass passivated junction
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency

MECHANICAL DATA :

- * Case : DO-41 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 : 0.339 gram

HIGH VOLTAGE 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 02-12E	RGP 02-14E	RGP 02-16E	RGP 02-18E	RGP 02-20E	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	1200	1400	1600	1800	2000	Volts
Maximum RMS Voltage	V _{RMS}	840	980	1120	1260	1400	Volts
Maximum DC Blocking Voltage	V _{DC}	1200	1400	1600	1800	2000	Volts
Maximum Average Forward Current 0.375"(9.5mm) Lead Length Ta = 55 °C	I _{F(AV)}	0.5					Amps.
Peak Forward Surge Current 8.3 ms. Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	20					Amps.
Maximum Peak Forward Voltage at 0.5 Amp.	V _F	2.5					Volts
Maximum DC Reverse Current Ta = 25 °C	I _R	5.0					μA
at Rated DC Blocking Voltage Ta = 100 °C	I _{R(H)}	50					μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	300					ns
Typical Junction Capacitance (Note 2)	C _J	5.0					pf
Junction Temperature Range	T _J	- 65 to + 150					°C
Storage Temperature Range	T _{STG}	- 65 to + 150					°C

Notes :

- (1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

RATING AND CHARACTERISTIC CURVES (RGP02-12E - RGP02-20E)

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

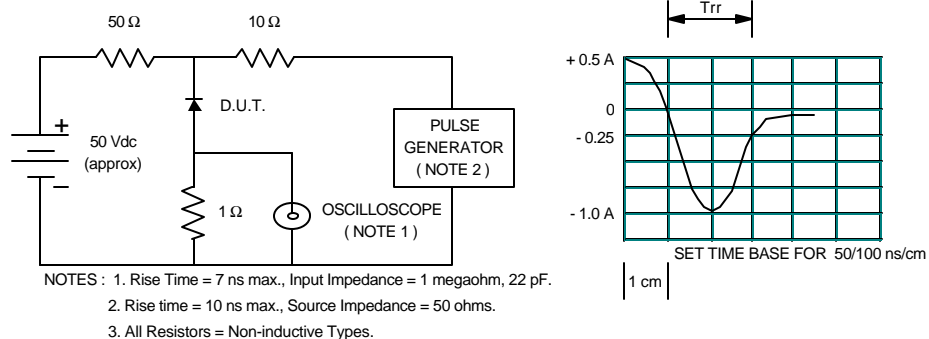


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

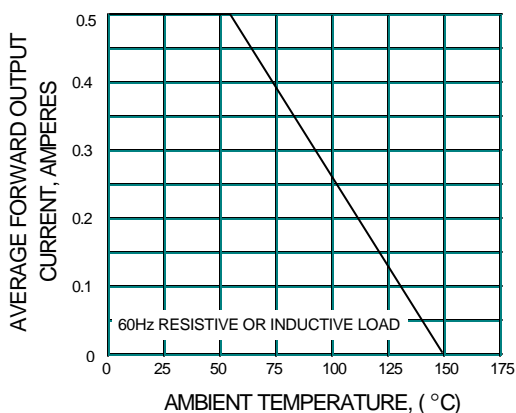


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

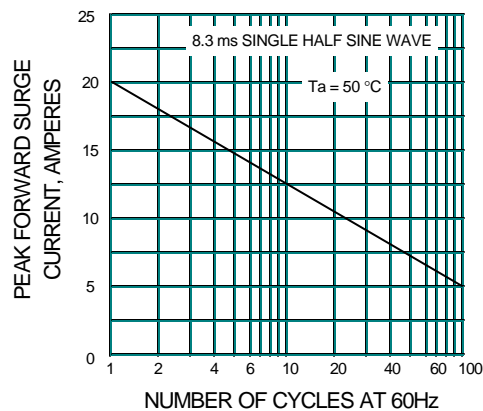


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

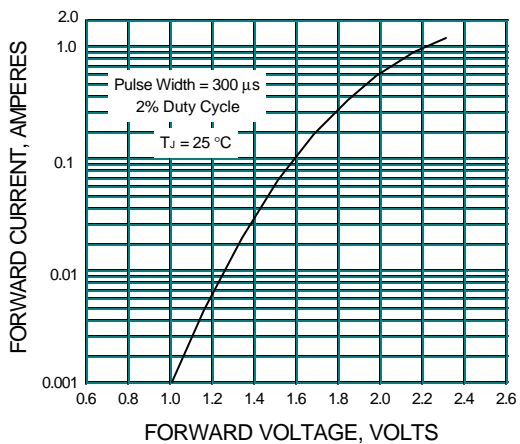


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

