

RGP10A THRU RGP10M

FAST RECOVERY PLASTIC RECTIFIERS SINTERED GLASS JUNCTION

Reverse Voltage – 50 to 1000 Volts

Forward Current – 1.0 Amperes

Features

- High temperature metallurgically bonded construction
Sintered glass cavity free junction.
- Capability of meeting environmental standard of
MIL-S-19500.
- High temperature soldering guaranteed
350°C/10sec/0.375" lead length at 5 lbs tension
Operate at $T_A = 55^\circ\text{C}$ with no thermal run away
Typical $i_r < 0.1\mu\text{A}$.

Mechanical Data

- **Terminals:** Plated axial leads, solderable per
MIL-STD 202E, method 208C
- **Polarity:** Color band denotes cathode
- **Mounting Position:** Any

Maximum Ratings and Electrical Characteristics

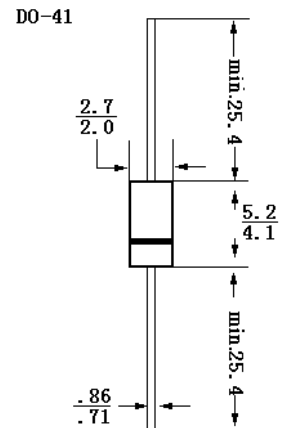
Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.

	Symbols	RGP 10A	RGP 10B	RGP 10D	RGP 10G	RGP 10J	RGP 10K	RGP 10M	Units
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 rectified current 3/8" lead length at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum forward voltage at rated forward current and 25°C	V_F	1.3							V
Maximum full load reverse current, full cycle average at 55°C Ambient	$I_{R(AV)}$	100							μA
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 150^\circ\text{C}$	I_R	5.0 200							μA μA
Maximum reverse recovery time (Note 1)	T_{rr}	150					250	500	nS
Typical junction capacitance (Note 2)	C_J	15							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{Stg}	-65 to +175							$^\circ\text{C}$

Notes: 1.Reverse recovery condition $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$.

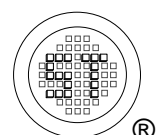
2.Measured at 1.0MHz and applied reverse voltage of 4.0 VDC.

3 Thermal resistance from junction to ambient at 3/8" lead length, P.C. board mounted.



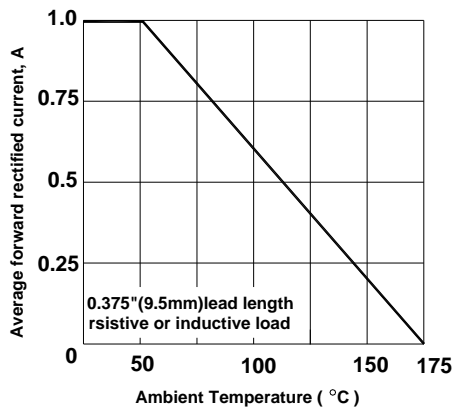
VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Amperes

Dimensions in mm

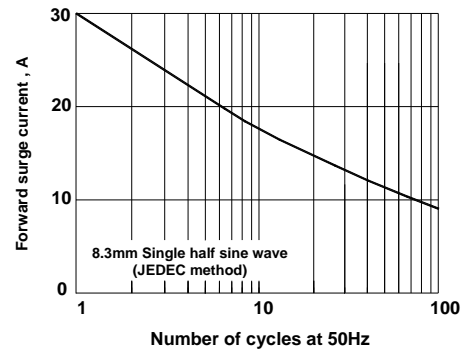


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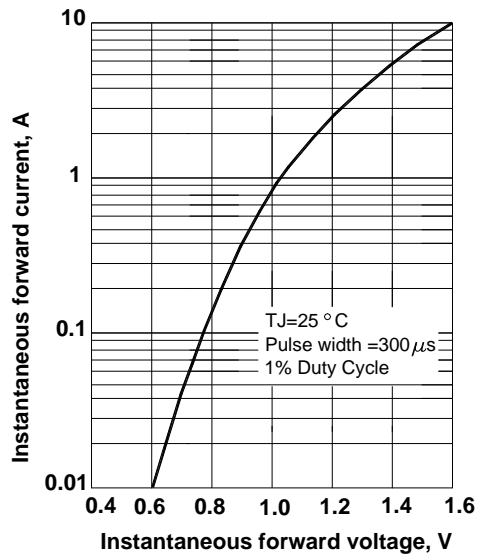
Forward current derating curve



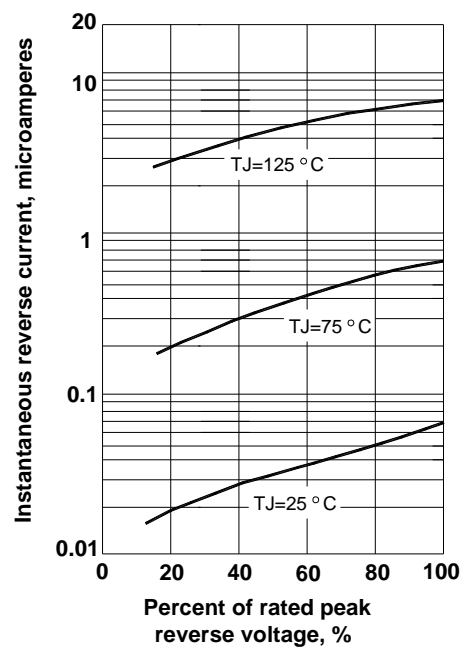
Maximum non-repetitive peak forward surge current



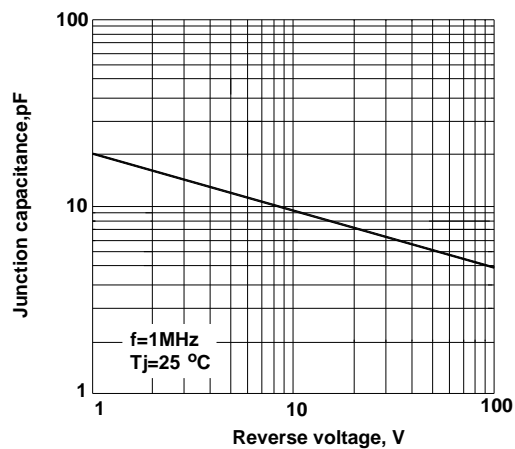
Typical instantaneous forward characteristics



Typical reverse characteristics



Typical junction capacitance



Typical transient thermal impedance

