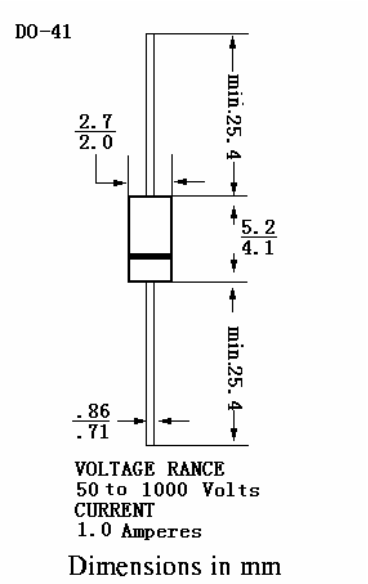
RGP10A THRU RGP10M

FAST RECOVERY PLASTIC RECTIFIERS
SINTERED GLASS JUNCTION

Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.0 Amperes



Dimensions in mm

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^{o}C/10sec/0.375" lead length at 5 lbs tension Operate at T_A = 55^{o}C with no thermal run away Typical ir<0.1μA.

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^{o}Cambient 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 ^{O}C	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum forward voltage at rated forward current and 25^{o}C	V_F	1.3							V
Maximum full load reverse current, full cycle average at 55 ^{O}C Ambient	$I_{R(AV)}$	100							μA
Maximum DC reverse current T_A = 25 ^{O}C at rated DC blocking voltage T_A = 150^{O}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							^{O}C/W
Operating junction and storage temperature range	T_J ,T_{STG}	-65 to +175							^{O}C

Notes: 1.Reverse recovery condition I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
2.Measured at 1.0MH$_Z$ and applied reverse voltage of 4.0 VDC.
3 Thermal resistance from junction to ambient at 3/8" lead length, P.C. board mounted.

SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

ISO/TS 16949 : 2002 Certificate No. 05103 ISO 14001:2004 Certificate No. 7116 ISO 9001:2000 Certificate No. 0506098

Dated : 14/05/2003

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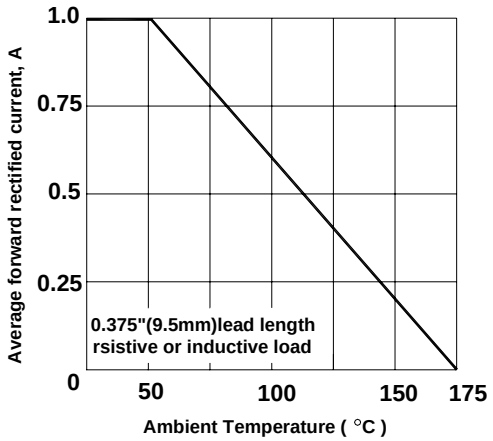
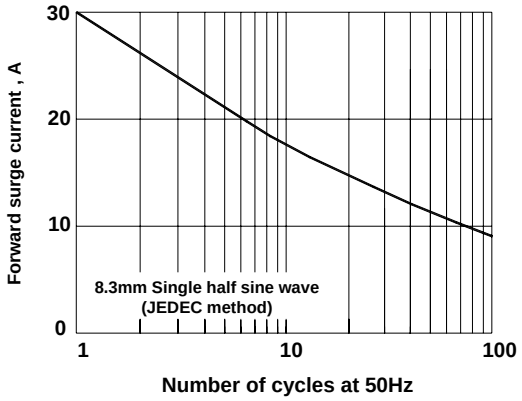
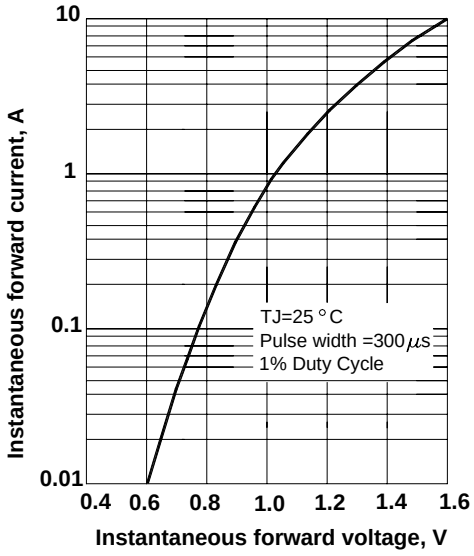
Forward current derating curve



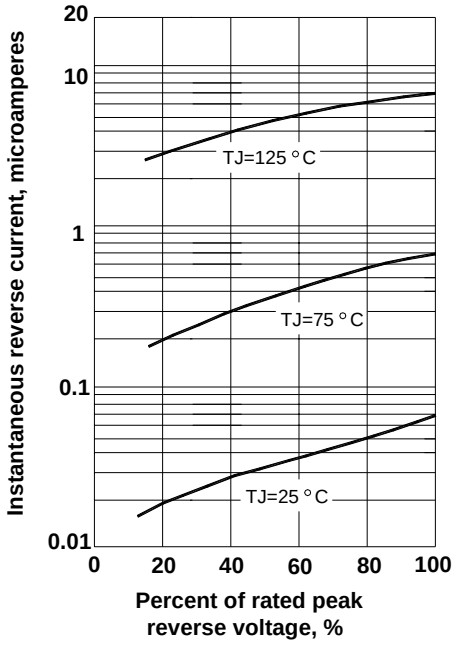
Maximum non-repetitive peak forward surge current



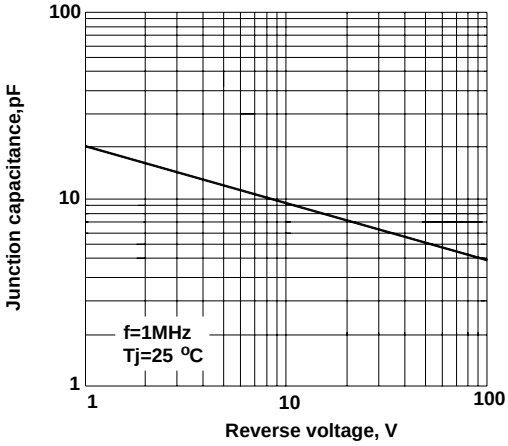
Typical instantaneous forward characteristics



Typical reverse characteristics



Typical junction capacitance



Typical transient thermal impedance