

RGP15A THRU RGP15M

FAST SWITCHING RECTIFIERS

GLASS PASSIVATED JUNCTION

Reverse Voltage – 50 to 1000 Volts

Forward Current – 1.5 Amperes

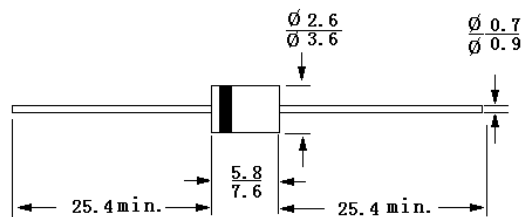
Features

- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction.
- 1.5 Ampere operation at $T_A = 55^\circ\text{C}$ with no thermal runaway.
- Typical I_R less than $0.1\mu\text{A}$
- High temperature soldering guaranteed:
350°C/10seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- **Case:** JEDEC DO-204AC, molded plastic over glass body.
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

DO-15



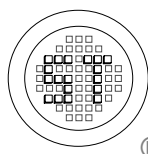
Dimensions in mm

Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

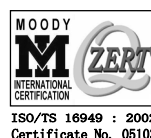
	Symbols	RGP 15A	RGP 15B	RGP 15D	RGP 15G	RGP 15J	RGP 15K	RGP 15M	Units
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A = 55 °C	I _{F(AV)}	1.5							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at T _A = 55 °C	I _{R(AV)}	100							μA
Maximum instantaneous forward voltage at 1.5A	V _F	1.3							V
Maximum DC reverse current T _A = 25 °C at rated DC blocking voltage T _A = 150 °C	I _R	5 200							μA μA
Maximum reverse recovery time I _F =0.5A, I _R =1A, I _{rr} =0.25A.	T _{rr}	150				250	500		nS
Typical junction capacitance at 4 V, 1MHz	C _J	25							pF
Typical thermal resistance (Note 1)	R _{θJA}	45							°C/W
Operating junction and storage temperature range	T _J , T _S	-65 to +175							°C

Notes: 1. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 250-155-04-002-04

Dated : 20/06/2003

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RATINGS AND CHARACTERISTIC CURVES ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

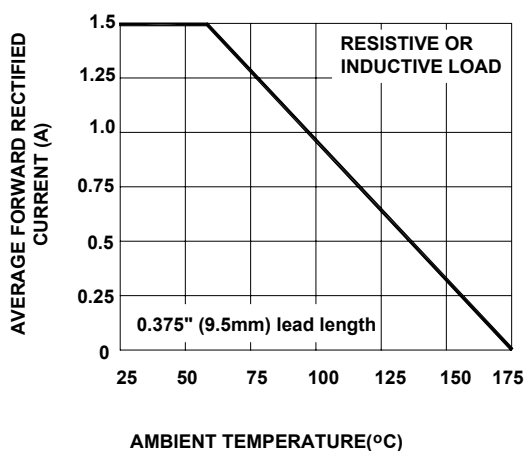


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

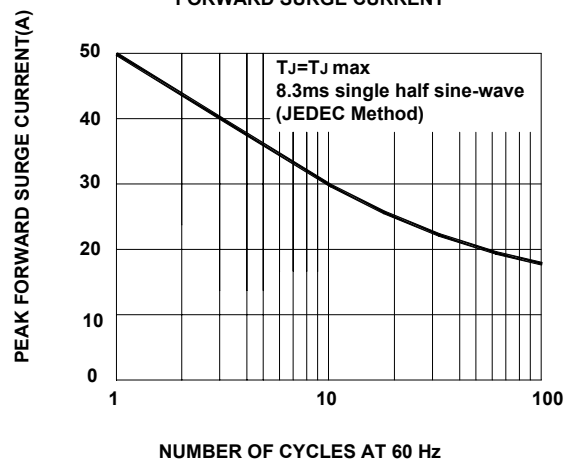


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

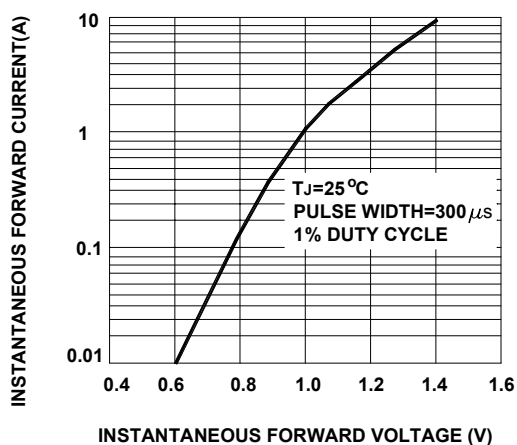


FIG.4-TYPICAL REVERSE CHARACTERISTICS

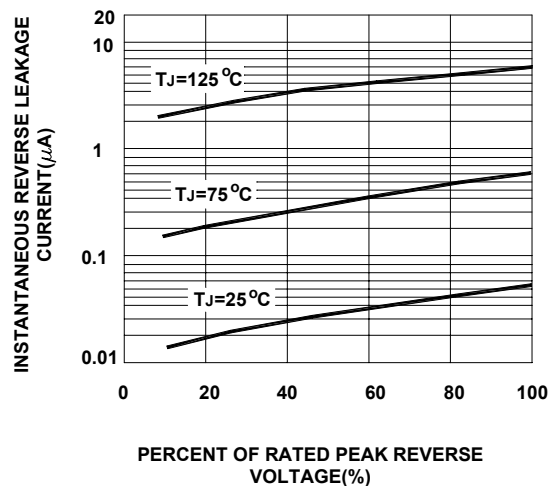


FIG.5-TYPICAL JUNCTION CAPACITANCE

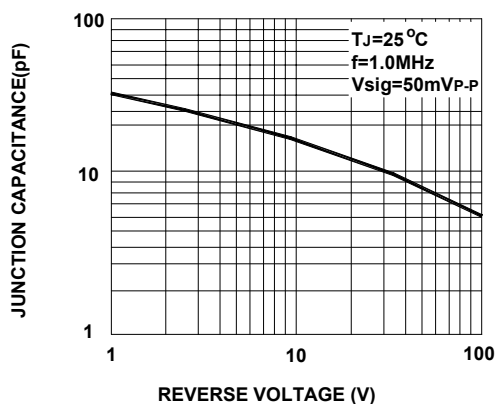
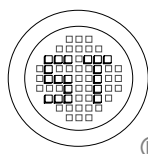
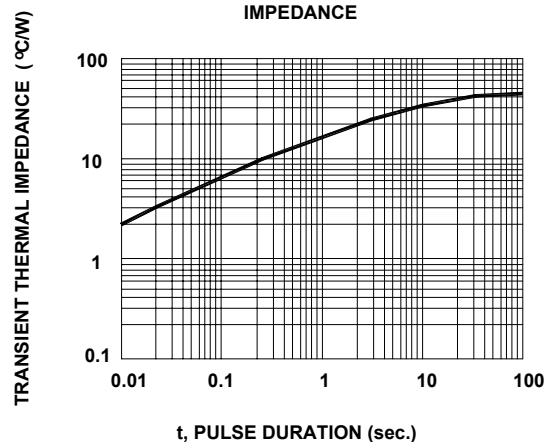
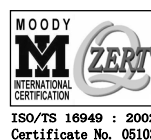


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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