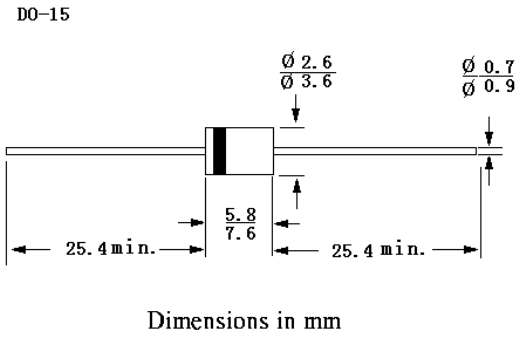
RGP15A THRU RGP15M

FAST SWITCHING RECTIFIERS

GLASS PASSIVATED JUNCTION
Reverse Voltage – 50 to 1000 Volts
Forward Current – 1.5 Amperes



Dimensions in mm

Features

- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction.
- 1.5 Ampere operation at T_A = 55°C with no thermal runaway.
- Typical I_R less than 0.1μA
- 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

Absolute Maximum Ratings and Characteristics
Ratings at 25°Cambient 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)	$R_{\theta JA}$	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.

RATINGS AND CHARACTERISTIC CURVES (T_A=25 °C unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

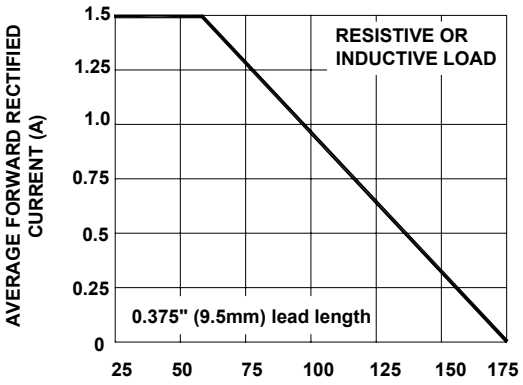


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

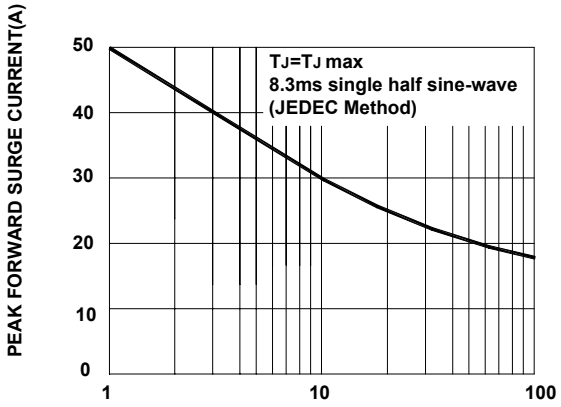


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

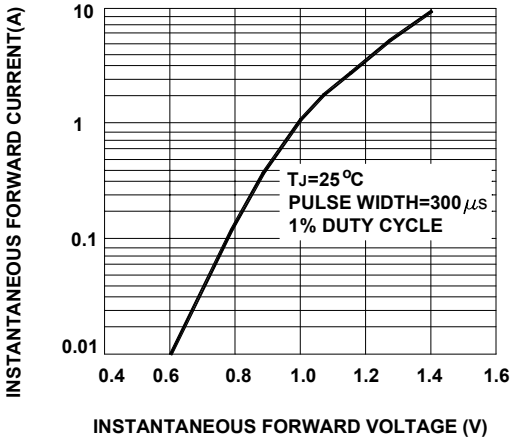


FIG.4-TYPICAL REVERSE CHARACTERISTICS

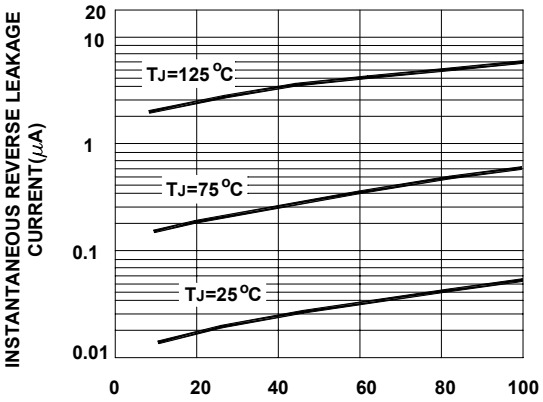


FIG.5-TYPICAL JUNCTION CAPACITANCE

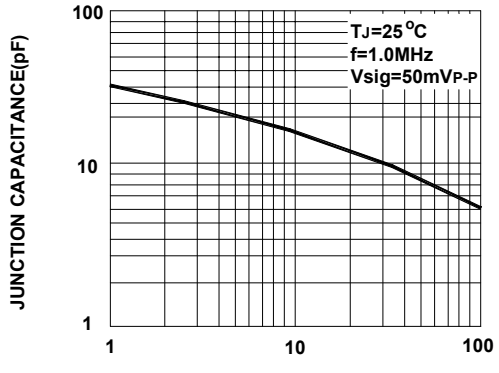


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE