

RG2A THRU RG2M

GLASS PASSIVATED FAST SWITCHING RECTIFIER

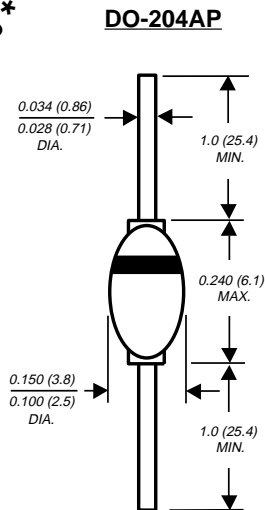
Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0 Amperes

FEATURES

- ◆ High temperature metallurgically bonded construction
- ◆ Hermetically sealed package
- ◆ Glass passivated cavity-free junction
- ◆ 1.0 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.1\mu\text{A}$
- ◆ Capable of meeting environmental standards of MIL-STD-19500
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds $0.375''$ (9.5mm) lead length, 5 lbs. (2.3kg) tension



PATENTED*



Dimensions in inches and (millimeters)

* Brazed-lead assembly is covered by Patent No. 3,930,306

MECHANICAL DATA

Case: JEDEC DO-204AP solid glass body

Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.02 ounce, 0.56 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | RG2A | RG2B | RG2D | RG2G | RG2J | RG2K | RG2M | UNITS |
|---|-----------------|--------------|------|------|------|------|------|------|---------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead lengths at $T_A=55^\circ\text{C}$ | $I_{(AV)}$ | 2.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 50.0 | | | | | | | Amps |
| Maximum instantaneous forward voltage at 2.0A | V_F | 1.3 | | | | | | | Volts |
| Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ | $I_{R(AV)}$ | 1.0 100.0 | | | | | | | μA |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 5.0 | | | | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 150 | | | | 200 | 250 | 500 | ns |
| Typical junction capacitance (NOTE 2) | C_J | 15.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 55.0 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -65 to +175 | | | | | | | $^\circ\text{C}$ |

NOTES:

(1) Measured with $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V_{DC}

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

RATINGS AND CHARACTERISTIC CURVES RG2A AND RG2M

FIG. 1 - FORWARD CURRENT DERATING CURVE

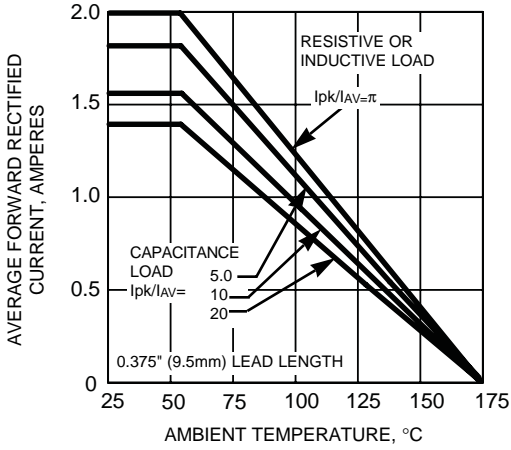


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

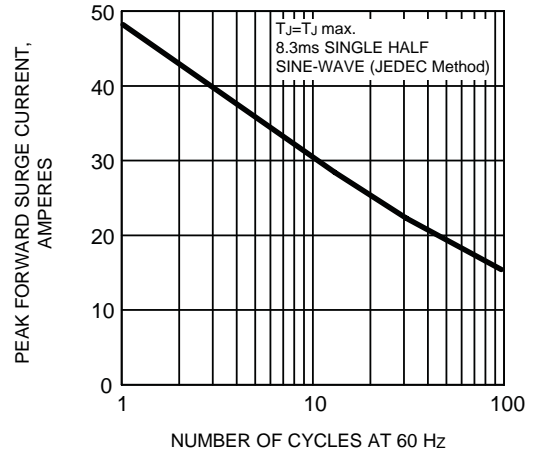


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

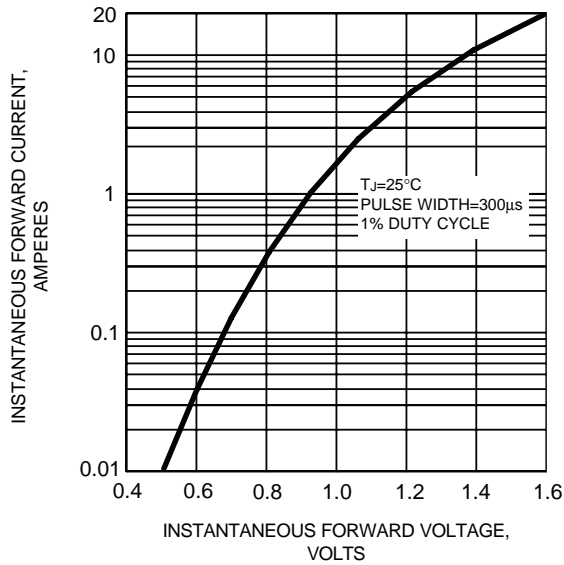


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

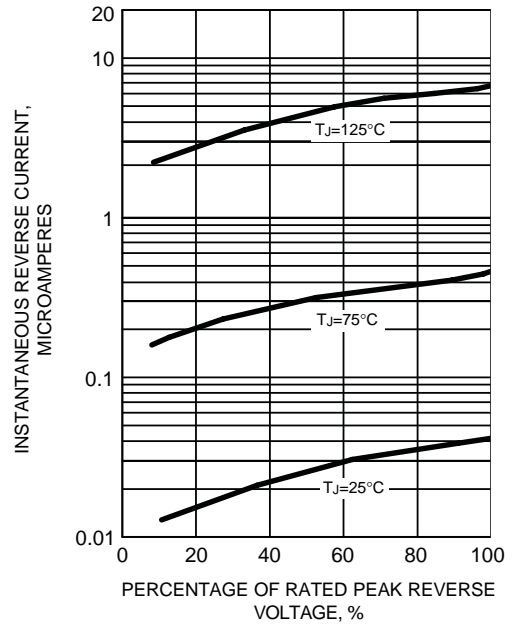


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

