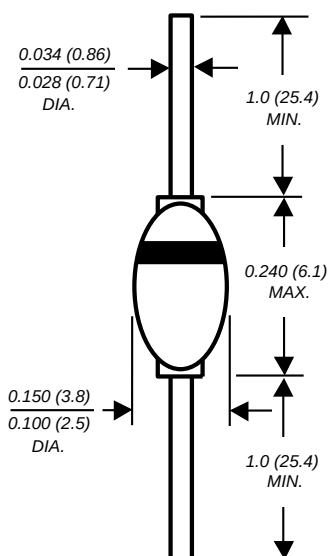




Glass Passivated Fast Switching Rectifier

DO204AP



Dimensions in inches and (millimeters)

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

Features

Reverse Voltage 50 to 1000V
Forward Current 2.0A

- High temperature metallurgically bonded construction
- Hermetically sealed package
- Cavity-free glass passivated 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-S-19500
- Fast switching for high efficiency
- High temperature soldering guaranteed:
350°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

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 & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	RG2A	RG2B	RG2D	RG2G	RG2J	RG2K	RG2M	Unit
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 $T_A=55^\circ\text{C}$	$I_{F(AV)}$	2.0							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) $T_A=25^\circ\text{C}$ lead length at $T_A=100^\circ\text{C}$	$I_{R(AV)}$	1.0 100							μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175							$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 2.0A	V _F	1.3				V
Maximum DC reverse current at rated DC blocking voltage	I _R	5.0				μA
Maximum reverse recovery time at at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	150	200	250	500	ns
Typical junction capacitance at 4.0V, 1MHz	C _J	15				pF

Note:

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

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 — Forward Current Derating Curve

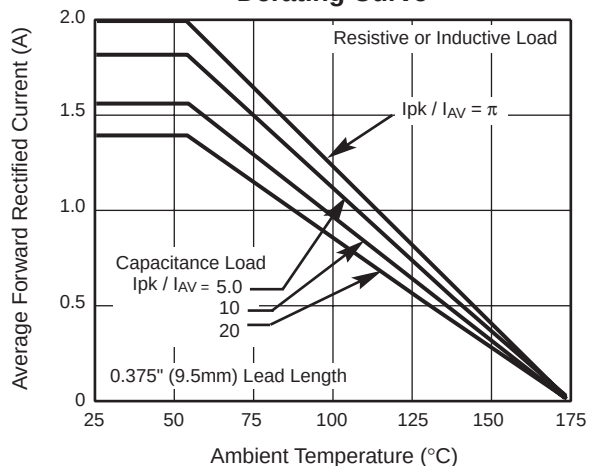


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

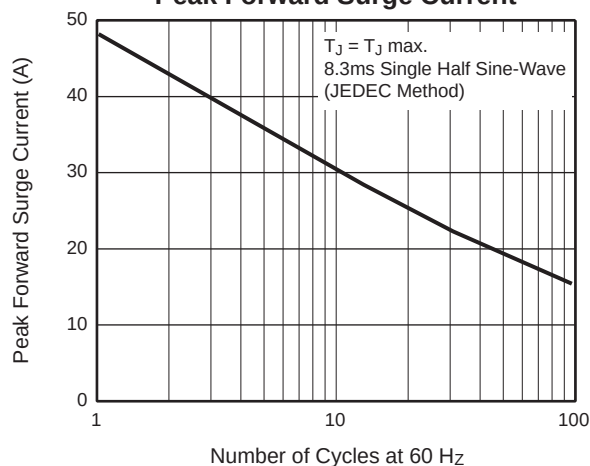


Fig. 3 — Typical Instantaneous Forward Characteristics

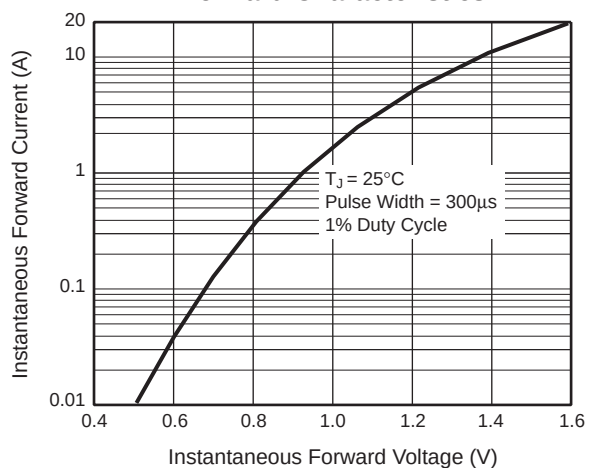


Fig. 4 — Typical Reverse Characteristics

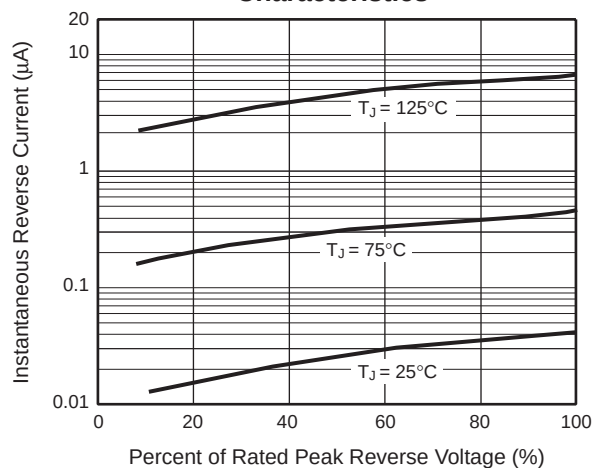


Fig. 5 — Typical Junction Capacitance

