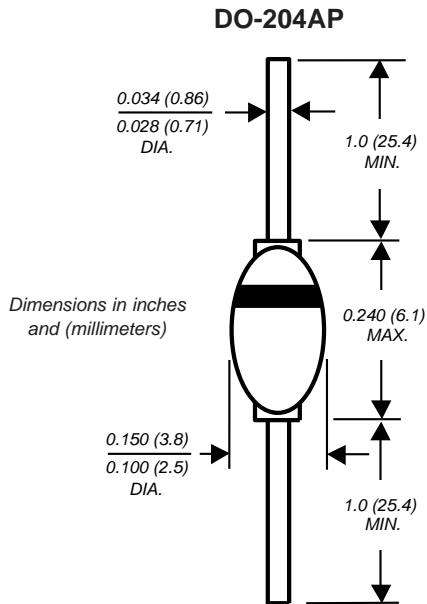


Glass Passivated Junction Rectifiers

Reverse Voltage
50 to 1000V
Forward Current 1.0A



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

Patented*

Features

- High temperature metallurgically bonded constructed rectifiers
- Cavity-free glass passivated junction in DO-204AP package
- Hermetically sealed package
- 1.0 ampere operation at $T_A=100^\circ\text{C}$ with no thermal runaway
- Typical I_R less than $0.1\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed: $350^\circ\text{C}/10$ 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 oz., 0.56 g

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

Parameter	Symbol	G1A	G1B	G1D	G1G	G1J	G1K	G1M	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	70	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 100^\circ\text{C}$	$I_{F(AV)}$	1.0							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) lead length at $T_A = 100^\circ\text{C}$	$I_{R(AV)}$	200							μA
Typical thermal resistance <small>(Note 1)</small>	$R_{\theta JL}$	55							$^\circ\text{C}/\text{W}$
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.

Parameter	Symbol	G1A	G1B	G1D	G1G	G1J	G1K	G1M	Unit	
Maximum instantaneous forward voltage at 1.0A	V_F	1.2		1.1						V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 150^\circ\text{C}$	I_R					2.0		100		μA
Typical reverse recovery time at $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	t_{rr}					3.5				μs
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

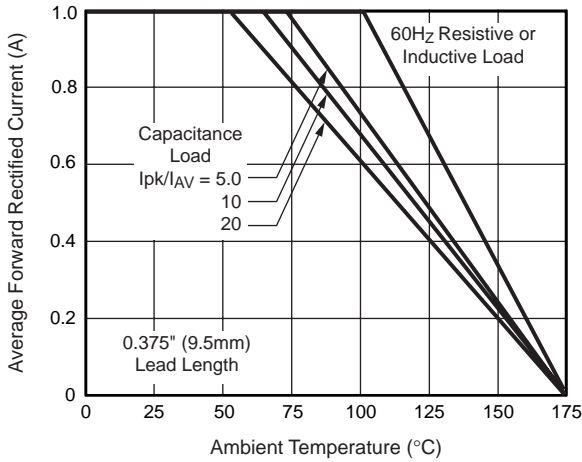


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

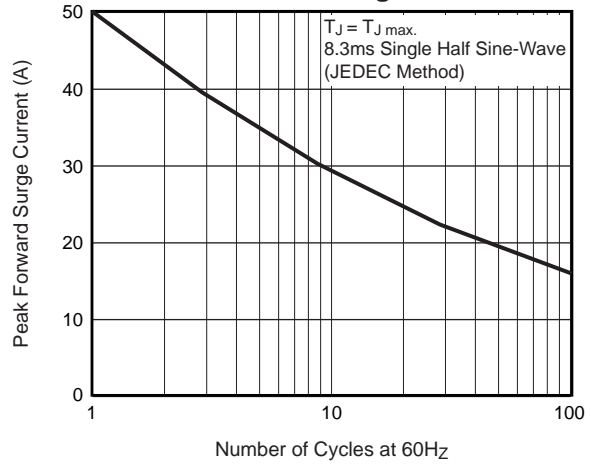


Fig. 3 – Typical Instantaneous Forward Characteristics

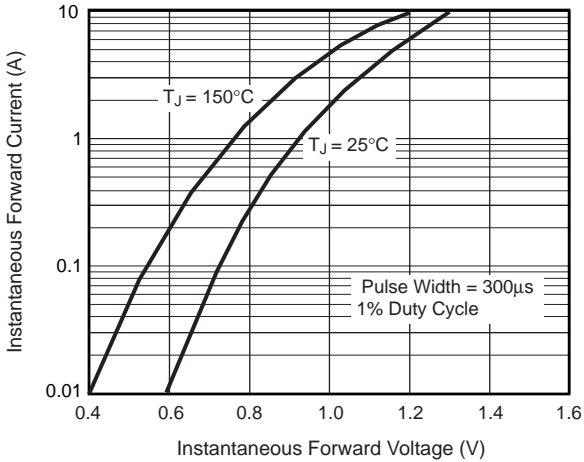


Fig. 4 – Typical Reverse Characteristics

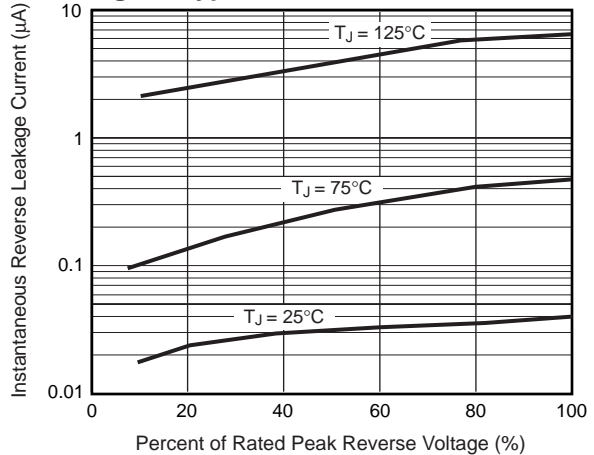


Fig. 5 – Typical Junction Capacitance

