

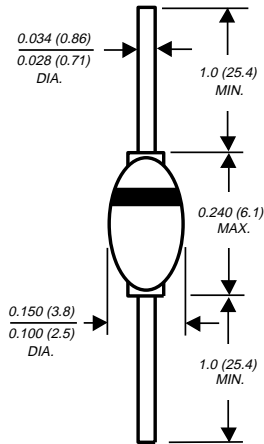
CG1 AND DG1

MINIATURE CLAMPER / DAMPER GLASS PASSIVATED JUNCTION RECTIFIER

Reverse Voltage - 1400 to 1500 Volts Forward Current - 1.5 Amperes

PATENTED*

DO204AP



Dimensions in inches and (millimeters)

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

FEATURES

- ◆ Specially designed for clamping circuits horizontal deflection systems and damper applications
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ 1.5 Ampere operation at $T_A=50^\circ\text{C}$ with no thermal runaway
- ◆ Typical I_R less than $0.1\mu\text{A}$
- ◆ Hermetically sealed package
- ◆ 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 ounce, 0.56 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	CG1	DG1	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	1400	1500	Volts
Maximum RMS voltage	V_{RMS}	980	1050	Volts
Maximum DC blocking voltage	V_{DC}	1400	1500	Volts
Maximum average forward rectified current $0.375"$ (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	1.5		Amps
Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	I_{FSM}	40.0		Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1		Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	5.0 100		μA
Maximum full load reverse current full cycle average $0.375"$ (9.5mm) lead length at $T_A=100^\circ\text{C}$	$I_{R(AV)}$	50.0		μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	15.0	20.0	μs
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) Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=50\text{mA}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient at $0.375"$ (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES CG1 AND DG1

FIG. 1 - FORWARD CURRENT DERATING CURVE

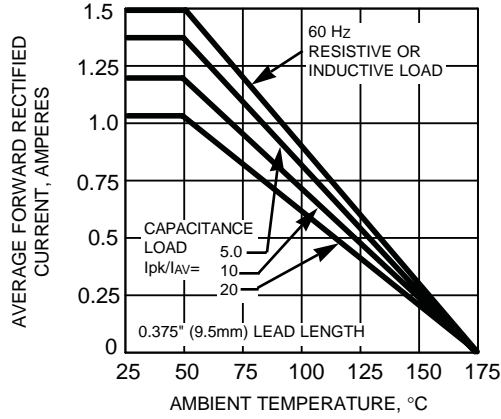


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

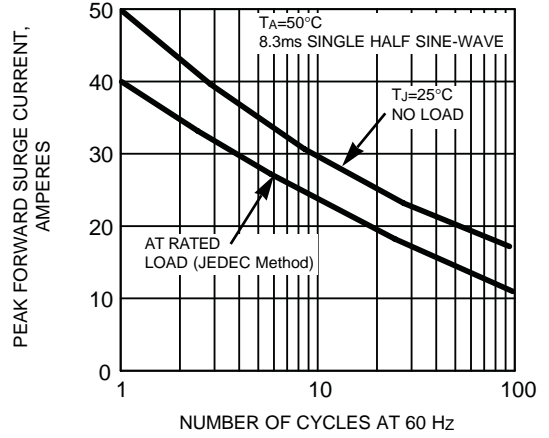


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

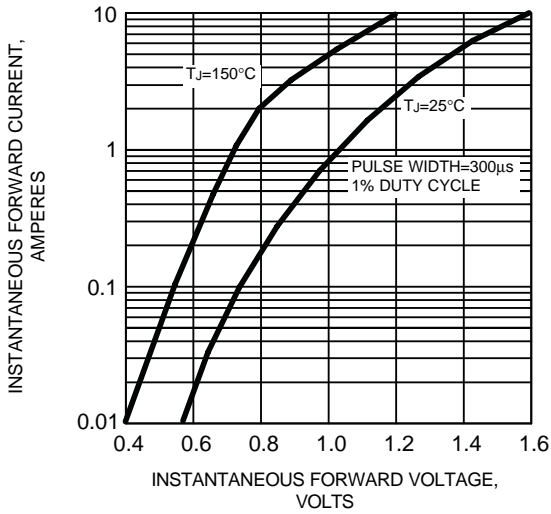


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

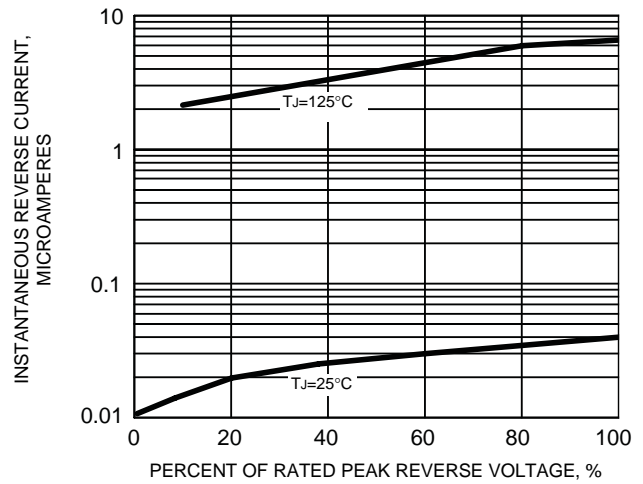


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

