

Silicon Diode

CG3

1400V / 3A

DATASHEET

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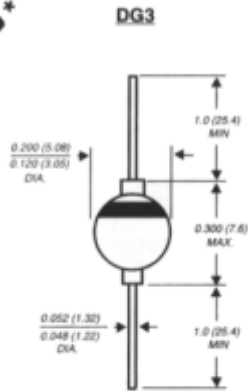
Source: General Semiconductor Databook 1998

CG3 AND DG3

CLAMPER / DAMPER GLASS PASSIVATED RECTIFIER

Reverse Voltage - 1400 to 1500 Volts Forward Current - 3.0 Amperes

PATENTED *



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
- ◆ 3.0 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: 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: 0.04 ounce, 1.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	CG3	DG3	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 $T_A=50^\circ\text{C}$	$I_{(AV)}$	3.0		Amps
Peak forward surge current 8.3ms single half sinewave superimposed on rated load (JEDEC Method) at $T_A=50^\circ\text{C}$	I_{FSM}	100.0		Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.2		Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	5.0 100.0		μA
Maximum full load reverse current full cycle average, 0.375" (9.5mm) lead length at $T_A=70^\circ\text{C}$	$I_{R(AV)}$	200.0		μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	15.0	20.0	μs
Typical junction capacitance (NOTE 2)	C_J	40.0		pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0		$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175		$^\circ\text{C}$

NOTES:

- (1) Measured with $I_F=0.5\text{A}$, $I_n=50\text{mA}$
- (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, with leads attached to heat sinks

RATINGS AND CHARACTERISTIC CURVES CG3 AND DG3

