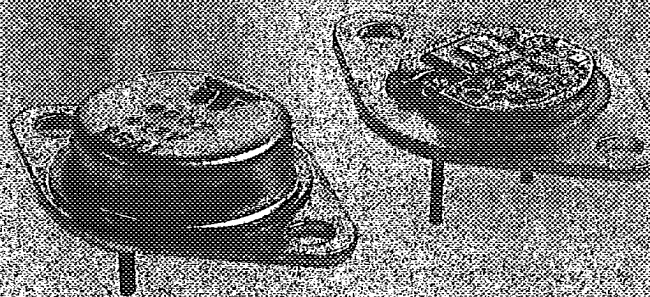


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HYBRID THREE TERMINAL VOLTAGE REGULATORS

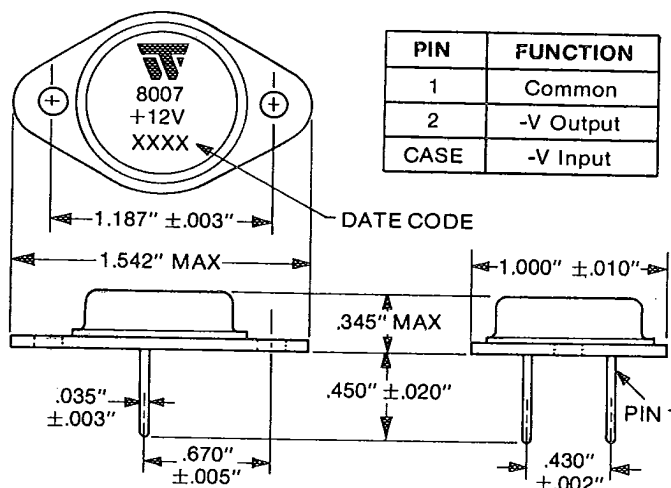
8007, 8008, 8009



FEATURES

- Provides $\pm 1\%$ Temperature Stability from -55°C to $+200^{\circ}\text{C}$
- Internal Current Foldback Protects Sensitive Loads at any Temperature
- Rugged Hermetically Sealed Package for Effective Heat Transfer
- Active Laser Trimming Assures Initial Accuracy

CASE OUTLINE



DESCRIPTION

The 8007, 8, 9 is a three-terminal series pass voltage regulator intended for severe environments to 200°C .

These regulators are self contained in a rugged hermetically sealed TO-3 header. The copper package is nickel plated and its feedthru pins are copper cored.

A single $10\mu\text{fd}$ capacitor is all that is required to provide a high quality, tightly regulated power supply.

Foldback current limiting is a standard feature.

Output voltage, line and load regulation fully specified at 200°C .

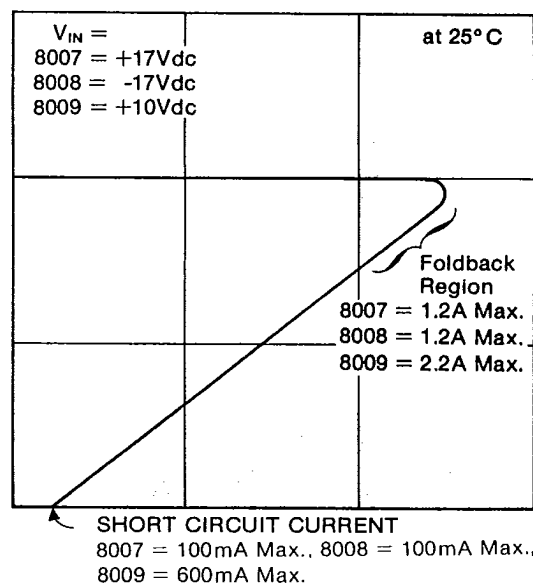
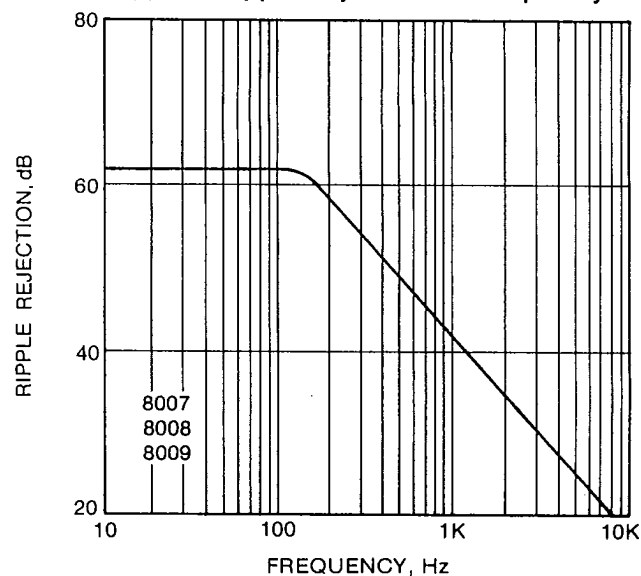
Initial voltage is active laser trimmed to 1%. See the tables on the following page for individual specifications.

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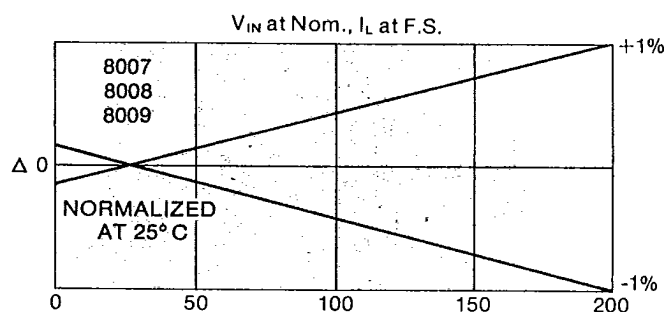
HYBRID THREE TERMINAL VOLTAGE REGULATORS—8007, 8008, 8009**ELECTRICAL CHARACTERISTICS**

		8007		8008		8009	
SPECIFICATION		CONDITION	OUTPUT LIMITS	CONDITION	OUTPUT LIMITS	CONDITION	OUTPUT LIMITS
Output Voltage at +25°C	V_{IN} I_L	+17Vdc 300mA	+12.0Vdc ± 0.06 Vdc	-17Vdc 300mA	-12.0Vdc ± 0.06 Vdc	+10Vdc 300mA	+5.0Vdc ± 0.05 Vdc
Output Voltage at +200°C	V_{IN} I_L	+17Vdc 300mA	+12.0Vdc ± 0.12 Vdc	-17Vdc 300mA	-12.0Vdc ± 0.12 Vdc	+10Vdc 300mA	+5.0Vdc ± 0.075 Vdc
Line Regulation at +25°C to +200°C	V_{IN} I_L	+15 to +36Vdc 50mA	V_o at Temp. ± 0.012 Vdc	-15 to -36Vdc 50mA	V_o at Temp. ± 0.012 Vdc	+8 to +26Vdc 50mA	V_o at Temp. ± 0.050 Vdc
Load Regulation at +25°C to +200°C	V_{IN} I_L	+17Vdc 50 to 300mA	V_o at Temp. ± 0.12 Vdc	-17Vdc 50 to 300mA	V_o at Temp. ± 0.12 Vdc	+10Vdc 50 to 300mA	V_o at Temp. ± 0.050 Vdc
Ripple Rejection at +25°C	V_{IN} I_L	+17Vdc 300mA	60dB Min. at 120Hz	-17Vdc 300mA	60dB Min. at 120Hz	+10Vdc 300mA	60dB Min. at 120Hz
Noise Output at +25°C	V_{IN} I_L	+17Vdc 300mA	50mVRMS Max.	-17Vdc 300mA	50mVRMS Max.	+10Vdc 300mA	50mVRMS Max.
Current Foldback at +25°C	V_{IN}	+17Vdc	1.2A Max.	-17Vdc	1.2A Max.	+10Vdc	2.2A Max.
Current at Short Circuit at +25°C	V_{IN}	+17Vdc	100mA Max.	-17Vdc	100mA Max.	+10Vdc	600mA Max.

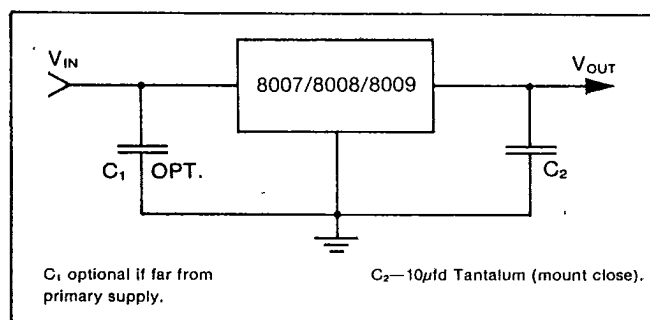
Output Current Characteristic**Typical Ripple Rejection vs Frequency****Bowmar/White Technology**4246 EAST WOOD ST. • PHOENIX, AZ 85040
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HYBRID THREE TERMINAL VOLTAGE REGULATORS—8007, 8008, 8009

Voltage Stability vs Temperature

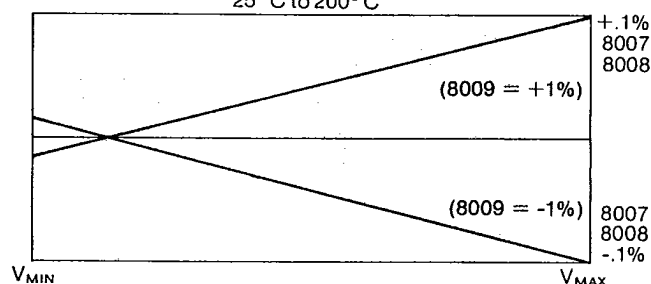


Connection Diagram



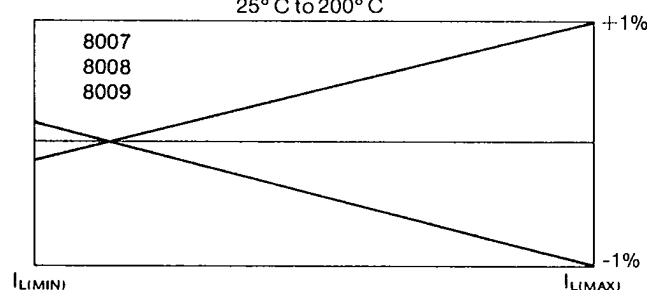
Line Regulation

25°C to 200°C

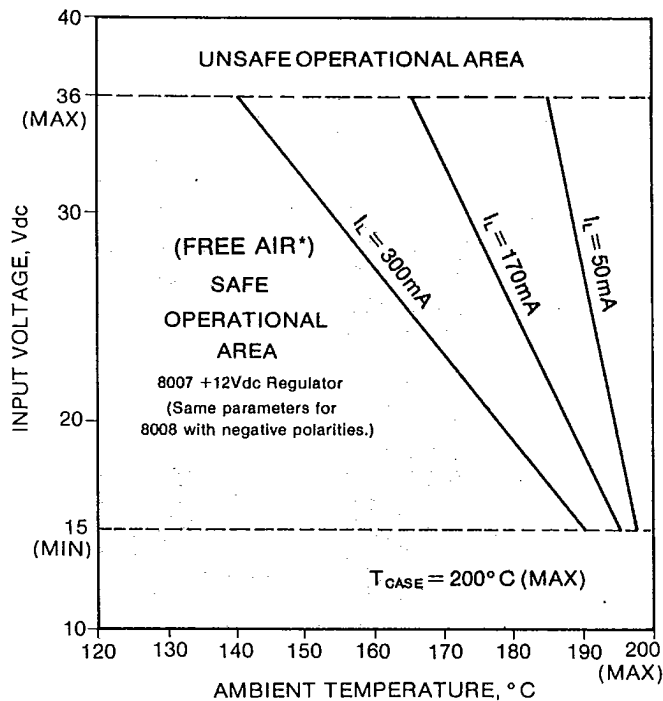


Load Regulation

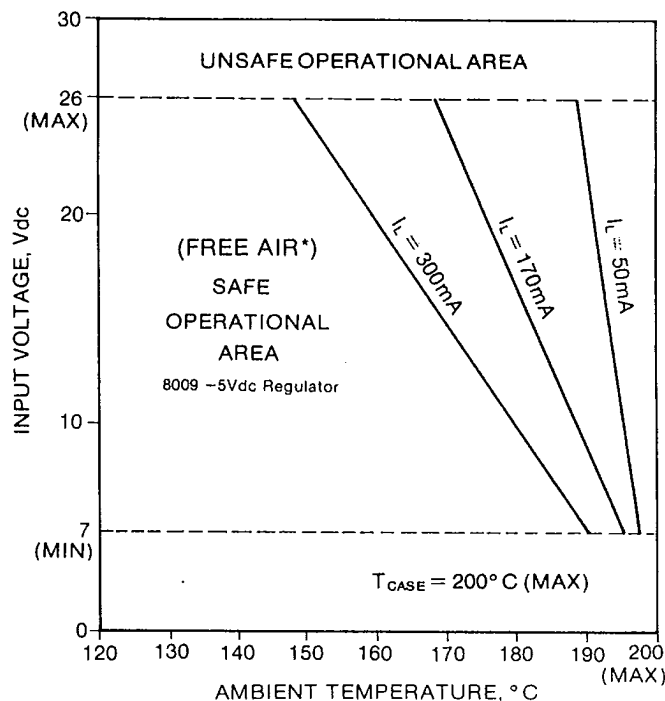
25°C to 200°C



Safe Operating Area



Safe Operating Area



*Heat sink will increase SOA.

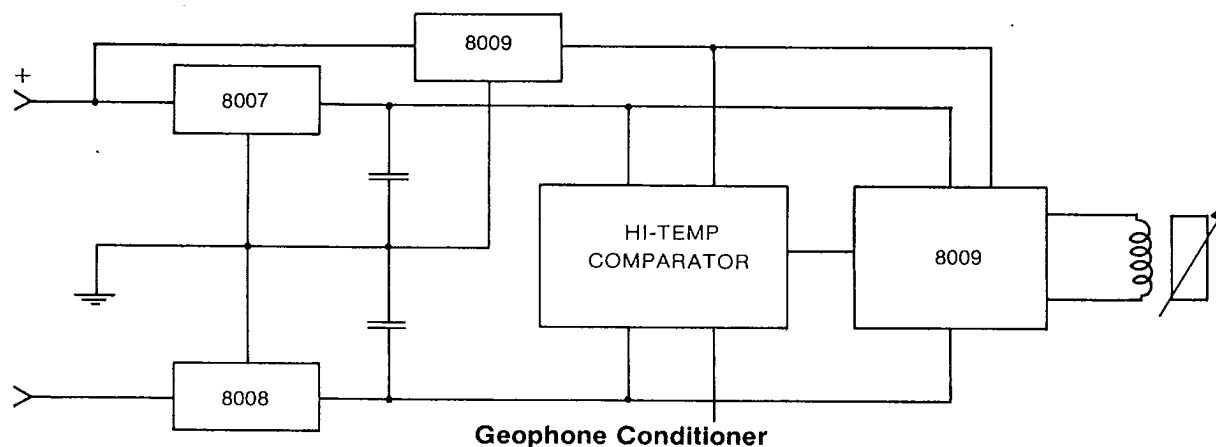
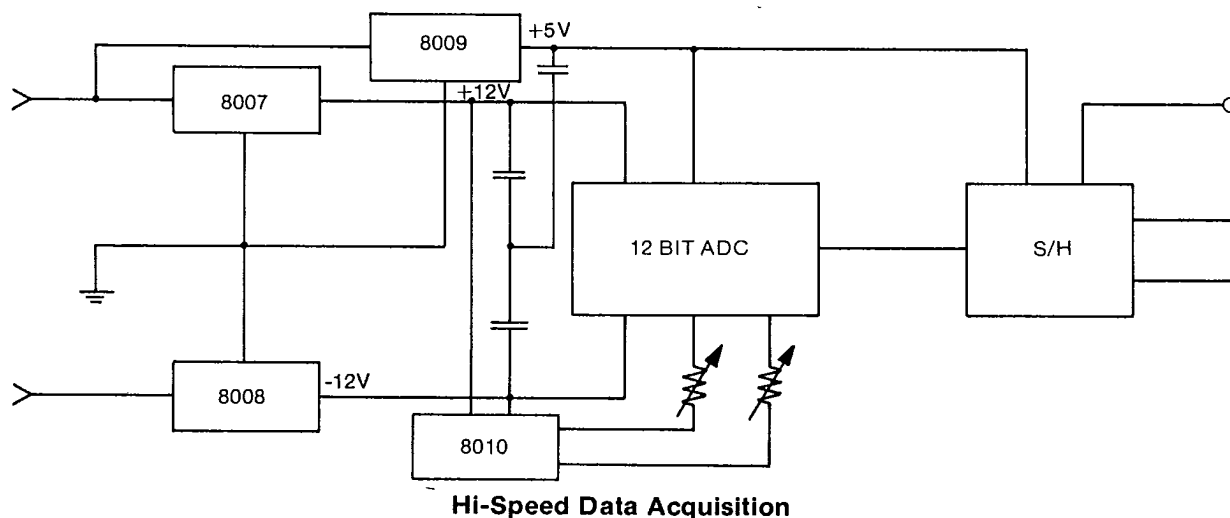
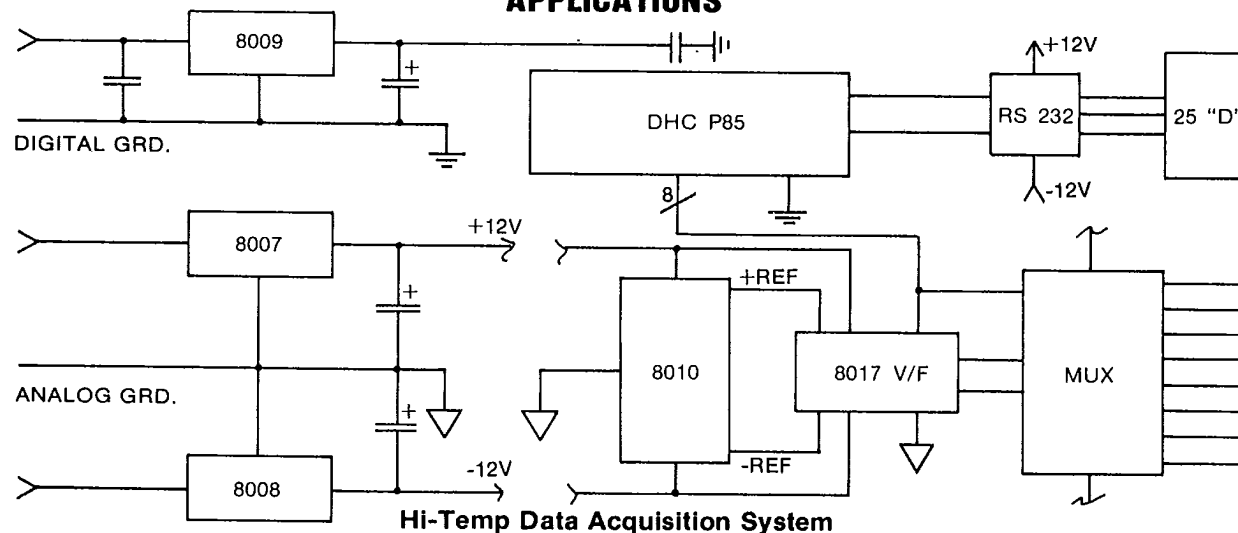
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Product Warranty: complete warranty statement available upon request.

HYBRID THREE TERMINAL VOLTAGE REGULATORS—8007, 8008, 8009

APPLICATIONS



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