

Complete Data Sheet available via web, Harris' home page: <http://www.semi.harris.com> or via Harris AnswerFAX, see Section 17

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12-Bit, Low Cost, Monolithic D/A Converters

Features

- DAC 80V/DAC 85V Alternative Source
- Monolithic Construction
- Fast Settling Time (Typ) 1.5 μ s
- Guaranteed Monotonicity
- Wafer Laser Trimmed Linearity, Gain, Offset
- Span Resistors On-Chip
- On-Board Reference
- Supply Operation ± 12 V

Applications

- High Speed A/D Converters
- Precision Instrumentation
- CRT Display Generation

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HI3-DAC80V-5	0 to 75	24 Ld PDIP	E24.6
HI3-DAC85V-4	-25 to 85	24 Ld PDIP	E24.6

Description

The HI-DAC80V is a monolithic direct replacement for the popular DAC80 and AD DAC80. The HI-DAC85V is a monolithic direct replacement for the popular DAC85 and AD DAC85 as well as the HI-5685V. Single chip construction along with several design innovations make the HI-DAC80V the optimum choice for low cost, high reliability applications. Harris' unique Dielectric Isolation (DI) processing reduces internal parasitics resulting in fast switching times and minimum glitch. On board span resistors are provided for good tracking over temperature, and are laser trimmed to high accuracy.

Internally the HI-DAC80V/HI-DAC85V eliminates code dependent ground currents by routing current from the positive supply to the internal ground node, as determined by an auxiliary R2R ladder. This results in a cancellation of code dependent ground currents allowing virtually zero variation in current through the package common, pin 21.

The HI-DAC80V is available as a voltage output device which is guaranteed over the 0°C to 75°C temperature range. The HI-DAC85V is available as a voltage output device which is guaranteed over the -25°C to 85°C temperature range. It includes a buried zener reference featuring a low temperature coefficient as well as an on board operational amplifier. The HI-DAC80V requires only two power supplies and will operate in the range of $\pm (11.4$ V to 16.5V).

Pinout

