μA741

HIGH PERFORMANCE OPERATIONAL AMPLIFIER

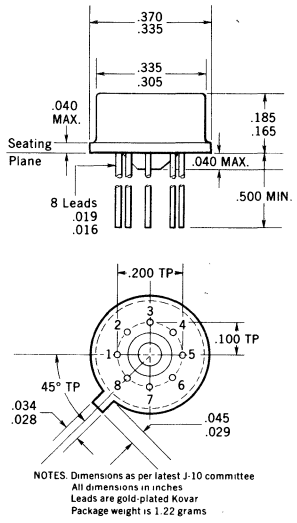
FAIRCHILD LINEAR INTEGRATED CIRCUITS

- **NO FREQUENCY COMPENSATION REQUIRED**
- **SHORT-CIRCUIT PROTECTION**
- **OFFSET VOLTAGE NULL CAPABILITY**
- **LARGE COMMON-MODE AND DIFFERENTIAL VOLTAGE RANGES**
- **LOW POWER CONSUMPTION**
- **NO LATCH UP**

GENERAL DESCRIPTION — The μA741 is a high performance monolithic operational amplifier constructed on a single silicon chip, using the Fairchild Planar* epitaxial process. It is intended for a wide range of analog applications. High common mode voltage range and absence of "latch-up" tendencies make the μA741 ideal for use as a voltage follower. The high gain and wide range of operating voltages provide superior performance in integrator, summing amplifier, and general feedback applications. The μA741 is short-circuit protected, has the same pin configuration as the popular μA709 operational amplifier, but requires no external components for frequency compensation. The internal 6dB/octave roll-off insures stability in closed loop applications.

PHYSICAL DIMENSIONS

in accordance with
JEDEC (TO-99) outline



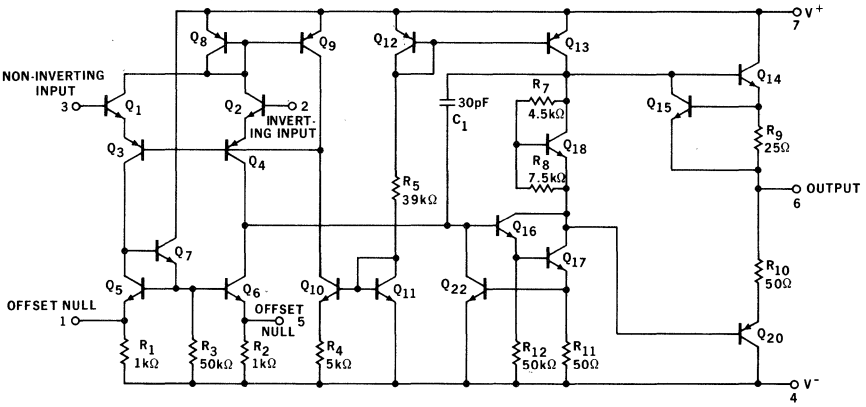
NOTES: Dimensions as per latest J-10 committee
All dimensions in inches
Leads are gold-plated Kovar
Package weight is 1.22 grams

ORDER PART NO. U5B7741312

ABSOLUTE MAXIMUM RATINGS

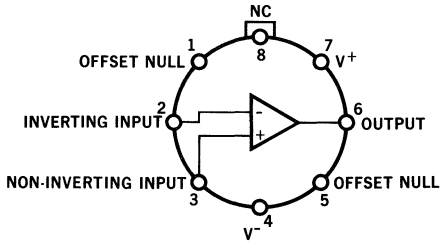
Supply Voltage	±22 V
Internal Power Dissipation (Note 1)	500 mW
Differential Input Voltage	±30 V
Input Voltage (Note 2)	±15 V
Storage Temperature Range	−65°C to +150°C
Operating Temperature Range	−55°C to +125°C
Lead Temperature (Soldering, 60 sec)	300°C
Output Short-Circuit Duration (Note 3)	Indefinite

SCHEMATIC DIAGRAM



CONNECTION DIAGRAM

(TOP VIEW)



NOTE: PIN 4 CONNECTED TO CASE

NOTES:

(1) Rating applies for case temperatures to 125°C; derate linearly at 6.5 mW/°C for ambient temperatures above +75°C.
(2) For supply voltages less than ±15 V, the absolute maximum input voltage is equal to the supply voltage.
(3) Short circuit may be to ground or either supply. Rating applies to +125°C case temperature or +75°C ambient temperature.

*Planar is a patented Fairchild process.

FAIRCHILD SEMICONDUCTOR
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