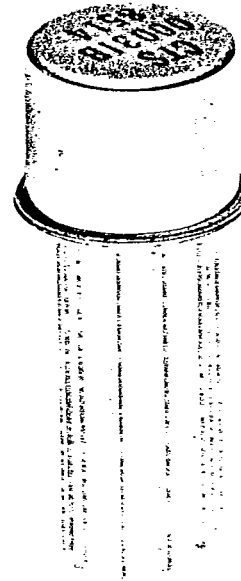


CTS® Wide Bandwidth Operational Amplifier CTS0003IB

GENERAL DESCRIPTION

The CTS0003IB is a general purpose uncompensated operational amplifier utilizing a bipolar design. Its construction features the high reliability of thick film hybrid technology and the familiar TO-5 glass-to-metal sealed header and welded can hermetic package. Additional features include the following:

- Very Low Offset Voltage (typically 0.5 mV)
- Large Output Voltage Swing ($\pm 10V$ into 100 ohm load)
- High CMRR (typically 90 db)
- Input Resistance (typically 100 Kohm)
- Gain Bandwidth Product (typically 10MHz)
- Pinned Out To Provide External Compensation
- Military Temperature Range Operation ($-55^{\circ}C$ to $+125^{\circ}C$)
- Pin-for-Pin Compatible With National Semiconductor LH0003

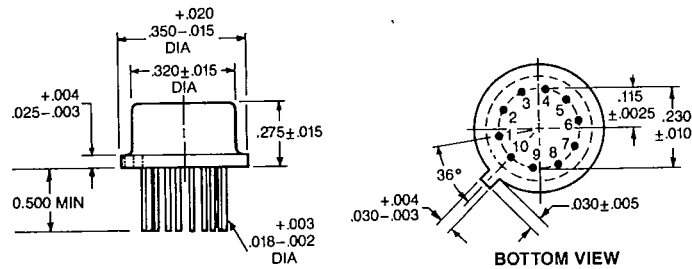


MAXIMUM RATINGS

Supply Voltage	$\pm 20V$
Input Voltage	$\pm V_s$
Differential Input Voltage	$\pm 7V$
Operating Temperature	$-55^{\circ}C$ to $+125^{\circ}C$
Storage Temperature	$-65^{\circ}C$ to $+150^{\circ}C$
Lead Temperature (soldering)	$+300^{\circ}C$ 10 sec
Max Output Current	120mA

PIN OUT

1. Compensation
2. +Input
3. $-V_{cc}$
4. -Input
5. Compensation
6. NC
7. Bias
8. Output
9. $+V_{cc}$
10. Clamp and Compensation



ELECTRICAL CHARACTERISTICS $T_A = -55^{\circ}C$ to $+125^{\circ}C$

CTS 0003IB

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Offset Voltage	$V_S = \pm 15V$, $R_S < 100K$			3.0	mV
Input Bias Current	$V_S = \pm 15V$			2	μA
Input Offset Current	$V_S = \pm 15V$			200	nA
Large Signal Voltage Gain	$V_S = \pm 15V$, $V_{OUT} \pm 10V$, $R_L = 1K$ ohm	80	100		db
Input Voltage Range	$V_S = \pm 20V$	± 17			V
Output Voltage Swing	$V_S = \pm 15V$, $R_L = 1 K$ ohm	± 10	± 13.0		V
Power Supply Rejection Ratio	$V_S = \pm 15V$, $\Delta V_S = 10V$	70			db
Common Mode Rejection Ratio	$V_S = \pm 15V$, $\Delta V_{IN} = \pm 10V$	70			db
Supply Current	$V_S = \pm 20V$		1.5	± 3.0	ma