

racy over the standard AD201A by 30%, and by a factor of 4 over the AD301A by reducing errors due to V_{OS} , $\Delta V_{OS}/\Delta T$, I_b , CMRR, etc. (See also Linear IC Section.)

AD741 J/K/L/S: LOWEST COST, HIGH ACCURACY

These low cost devices are general purpose op amps with internal frequency compensation and significantly tighter specifications which allow substantial upgrading in performance of designs desiring 741 simplicity and operating familiarity. Results of error budget analyses of typical applications show factors of improvement in accuracy ranging from 2.5 to 8 over the industry-standard AD741 and AD741C. (See also Linear IC Section.)

AD208/208A: LOW BIAS CURRENT

Using a superbeta input device, AD208A offers low bias current, to 2nA, for use with higher circuit impedances or for lower current drift. The "A" selection has lower offset voltage and drift with specified minimum gain and CMRR ratings. Included in this series are models AD108/AD108A (military grade) and AD301/AD301A (industrial grade) with varying specifications for temperature operating range and input characteristics. (See also Linear IC Section.)

		Microcircuit								
Low Cost, 20mA Output 119		Economy, Speed AD201A		Low Cost High Accuracy AD741				Super Beta Low 2nA Bias AD208		High Accuracy, Economy, Speed AD301AL
A	K	J	K	L	S	AD208	AD208A			
500,000		50,000	50,000				50,000	80,000	80,000	
$\pm 10V@5mA$		$\pm 10V@5mA$	$\pm 10V@10mA$	$\pm 10V@5mA$	$\pm 10V@10mA$	$\pm 13V@1.3mA$		$\pm 10V@5mA$		
1.5MHz 100kHz $6V/\mu s^1$ 0.5ms		1MHz 10kHz typ $0.5V/\mu s$ typ ---	1MHz 10kHz typ $0.5V/\mu s$ typ ---				1MHz 10kHz typ ³ $0.3V/\mu s$ typ ---		1-10MHz 6-150kHz $0.25-9V/\mu sec$ ---	
± 20 $\pm 5mV^2$ $\pm 5\mu V/^\circ C$ $\pm 10\mu V/\%$ $\pm 200\mu V/mo.$		$\pm 2mV$ $\pm 15\mu V/^\circ C$ $15\mu V/\% \max$ ---	$\pm 3mV$ $\pm 20\mu V/^\circ C$ $100\mu V/V \max$	$\pm 2mV$ $\pm 15\mu V/^\circ C$ ---	$\pm 0.5mV$ $\pm 5\mu V/^\circ C$ $15\mu V/V \max$	$\pm 2mV$ $\pm 15\mu V/^\circ C$ ---	$\pm 2mV^4$ ± 15 $15\mu V/\% \max$ ---	$\pm 0.5mV$ $\pm 5\mu V/^\circ C$ $15\mu V/\% \max$ ---	$\pm 0.5mV$ $\pm 5\mu V/^\circ C$ $90dB \min$ ---	
± 0.6 $\pm 35nA$ $\pm 0.5nA/^\circ C$		$\pm 75nA$ ---	$\pm 200nA$	$\pm 75nA$	$\pm 50nA$	$\pm 75nA$	$\pm 2nA$ ---	$\pm 30nA$ ---		
± 0.1 $\pm 3nA$ $\pm 0.05nA/^\circ C$		$\pm 10nA$ $\pm 0.2nA/^\circ C$	$\pm 50nA$ $\pm 0.1nA/^\circ C$	$\pm 10nA$ $\pm 0.2nA/^\circ C \max$	$\pm 5nA$ $\pm 0.1nA/^\circ C \max$	$\pm 10nA$ $\pm 0.25nA/^\circ C \max$	$\pm 0.2nA$ $\pm 2.5pA/^\circ C$	$\pm 5nA$ $\pm 0.1nA/^\circ C$		
$10^6 \Omega$ $10^9 \Omega$		$4 \times 10^6 \Omega$ ---	$2 \times 10^6 \Omega$ ---				$70 \times 10^6 \Omega$ ---		$4 \times 10^6 \Omega$ ---	
$1\mu V$ $2\mu V$ $20pA$		$2\mu V$ $4\mu V$ ---	$2\mu V$ $3\mu V$ ---				---		$2\mu V$ $4\mu V$ ---	
$\pm 10V$ 86dB $\pm 15V$		$\pm 12V$ 96dB $\pm 30V$	$\pm 12V$ 100dB $\pm 30V$				$\pm 14V$ 100dB Note ⁵		$\pm 12V$ 100dB $\pm 30V$	
$\pm(12 \text{ to } 18)V$ $\pm 15V@2mA$		$\pm(3 \text{ to } 22)V$ $\pm 15V@3mA$	$\pm(5 \text{ to } 18)V$	$\pm(5 \text{ to } 22)V$ $\pm 15V@2.8mA$				$\pm(2 \text{ to } 20)V$ $\pm 15V@0.6mA$	$\pm(3 \text{ to } 18)V$ $\pm 15V@3mA$	
$-25 \text{ to } +85^\circ C$ 0 to $+70^\circ C$		$-25 \text{ to } +85^\circ C$	0 to $+70^\circ C$				$-25 \text{ to } +85^\circ C$		0 to $+70^\circ C$	
F-1 $1.5'' \times 1.5'' \times 0.4''$		TO-99	TO-99, Mini-DIP			TO-99	TO-99	TO-99, Mini-DIP		
\$26.00 \$37.00 \$24.50 \$34.00		\$4.10 \$4.10	\$1.85 \$1.85	\$3.40 \$3.40	\$9.00 \$9.00	\$4.95 \$4.95	\$10.50 \$10.50	\$21.00 \$21.00	\$6.00 \$6.00	

(4)No provision for external V_{OS} null.

(5)Shunt-diode input protection. Current must be limited to $\pm 10mA$.