

# Operational Amplifiers

## MODULES

Product Number	Guaranteed Output Range (1)		Open Loop Gain (1) (MIN)	Frequency Response		Time Response		Offset Voltage		Input Bias Current		Temp. Range	Pkg.
	V (MIN)	mA (MIN)		GBW (MIN) MHz	Unity Gain (MIN) MHz	Settling Time (MAX) uS - 0.1%	Slew Rate (MIN) V/us	Initial (MAX) mV	Drift (MAX) uV/°C	Initial (MAX) nA	Drift (MAX) nA/°C		
1005	±20	±5	94dB	—	1.5(t)	20(t)	±1.2	—	±20	±25	±1.0	D	H
1006	±1.5	±1	80dB	—	0.6(t)	6(t)	±0.5	±1	±50	±0.05	(3)	D	O
1009	±10	±5	94dB	—	1	—	±5	—	±75	±0.03	(3)	D	H
1011	±10	±20	100dB	—	12	3	±70	—	±50	-0.03	(3)	D	I
1018	±10	±2.5	120dB	—	0.5	80(t)	±0.3(t)	±1	±1.5	2	±0.1	D	H
1020	±10	±5	106dB	—	0.5	40(t)	±0.3	±3	±5	±25	±0.5(t)	D	J
1021	±10	±20	100dB	—	2	10(t)	±6	±5(t)	±50	±0.005	±0.001	D	J
1022	±110	±20	120dB	—	1	—	±20	±2	±50	-0.03	(3)	D	N
1023	±10	±20	100dB	—	2	10(t)	±6	±0.7	±5	±0.003	±0.001	E	J
1024	±10	±20	94dB	—	2(t)	5(t)	±6	±10(t)	±20	±50	±1	D	J
1025	±10	±50	100dB	50	—	0.09(t)	±500	±10	±50	-0.02	(3)	D	K
1026	±10	±5	100dB	—	1	10(t)	±10	±5(t)	±50	±0.05	(3)	D	J
1027	±10	±20	100dB	—	10	0.5(t)	±60	±15	±50	-0.05	(3)	D	L
1028	±10	±5	108dB	—	1	—	±6	±3(t)	±20	+35	±0.5	D	M
1032	±110	±10	100dB	—	1	25	±6	±5	±50	-0.01	(3)	D	N
1035	±10	±5	100dB	—	0.3	30(t)	±0.3(t)	±2	±50	±150fA	(3)	A	L
1701	±12	±5	112dB	—	1(t)	—	±1.2	±0.015	±0.25	±0.05	±0.001	D	K
1702	±10	±5	100dB	—	500Hz(t)	—	±0.5V/ms(t)	±5	±30	±5fA	±2fA	A	K

## Buffers

### HYBRIDS

Product Number	Guaranteed Output Range (1)		Open Loop Gain (1) (MIN)	Frequency Response	Time Response		Offset Voltage		Input Bias Current		Temp. Range	Pkg.
	V (MIN)	mA (MIN)		±3dB Bandwidth (MIN) (V <sub>IN</sub> = 1VRMS) MHz	Settling Time (MAX) uS - 0.1%	Slew Rate (MIN) V/us	Initial (MAX) mV	Drift (MAX) uV/°C	Initial (MAX) nA	Drift (MAX) nA/°C		
0033 (5)	±9	±100(t)	0.98V/V(t)	100(t)	0.025(t)	±1000	±10	±50(t)	±2.5	(3)	B, D	A
1490 (5)	±3	±100	0.98V/V	100(t)	—	±500	±20	±500	±100	—	A	E

### NOTES

- (1) Rated load.
- (2) Operational transconductance amplifier with user defined output stage.
- (3) Doubles approximately every 10°C.
- (4) R<sub>L</sub> = 10kΩ.
- (5) Screened to the high reliability requirements of MIL-STD-883C, Class "B", may be ordered screened to Class "S"