Operational Amplifiers

Single Operational Amplifiers

Internally Compensated, Commercial Temperature Range (0 to 70°C)

Mfr.'s Type	I_{IB} (µA) Max.	V_{IO} (mV) Max.	T_{CVIO} (µV/°C) Typ.	I_{IO} (nA) Max.	Avol (V/mV) Min.	Bandwidth (A_V=1) (MHz) Typ.	Slew Rate (A_V=1) (V/µs) Typ.	Supply Voltage (V) Min/Max	Description	Package Type
MC34071P	0.500	5.0	10	75.00	25.0	4.5	10.0	+3.0/+44	High Performance	8 Lead PDIP

Internally Compensated, Automotive Temperature Range (–40 to +85°C)

MC33171P	0.100	4.5	10	20.00	50.0	1.8	2.1	+3.0/+44	Low Power Single Supply	8 Lead PDIP

Dual Operational Amplifiers

Internally Compensated, Commercial Temperature Range (0 to 70°C)

LM358N	25.000	6.0	7	50.00	25.0	1.0	0.6	±1.5/±18 (Split Supplies), +3.0 / +36 (Single Supply)	Low Power Consumption	8 Lead PDIP
MC34072P	0.500	5.0	10	75.00	25.0	4.5	10.0	+3.0/+44	High Performance, Single Supply	8 Lead PDIP
MC34072AP	500.000 nA	3.0	10	50.00	50.0	4.5	10.0	+3.0/+44	High Performance, Single Supply	8 Lead PDIP

Internally Compensated, Industrial Temperature Range (–25 to +85°C)

LM258N	0.150	5.0	10	30.00	50.0	1.0	0.6	±1.5/ ±18 (Split Supplies), +3.0/+36 (Single Supply)	Split or Single Supply Op Amp	8 Lead PDIP

Internally Compensated, Automotive Temperature Range (–40 to +85°C)

LM2904N	0.250	7.0	7	50.00	100 Typ.	1.0	6.0	±1.5/±13 (Split Supplies), +3.0/+26 (Single Supply)	Split or Single Supply Op Amp	8 Lead PDIP
MC33072P	0.500	5.0	10	75.00	25.0	4.5	10.0	+3.0/+44	High Performance, Single Supply	8 Lead PDIP
MC33078P	750.000 nA	2.0	2	150.00	31.6	16.0	7.0	±5.0/±18	Low Noise	8 Lead PDIP
MC33172P	0.100	4.5	10	20.00	50.0	1.8	2.1	+3.0/+44	Low Power, Single Supply	8 Lead PDIP
MC33178P	0.500	3.0	2	50.00	50.0	5.0	2.0	±2.0/±18	High Output Current	8 Lead PDIP

Internally Compensated, Extended Automotive Temperature Range (–40 to +125°C)

TCA0372DP1	500 nA	15.0	20	50.00	30.0	1.1	1.4	+5.0/+36	Power Op Amp, Single Supply	8 Lead PDIP

Quad Operational Amplifiers

Internally Compensated, Commercial Temperature Range (0 to 70 °C)

LM324N	0.250	6.0	7	50.00	25.0	1.0	0.6	±1.5/±16 (Split Supplies), +3.0/+32 (Single Supply)	Low Power Consumption	14 Lead PDIP
MC3403P	0.500	10.0	7	50.00	20.0	1.0	0.6	±1.5/±18 (Split Supplies), +3.0/+36 (Single Supply)	No Crossover Distortion	14 Lead PDIP
MC34074P	0.500	5.0	10	75.00	25.0	4.5	10.0	+3.0/+44	High Performance, Single Supply	14 Lead PDIP
MC34074AP	500.000 nA	3.0	10	50.00	50.0	4.5	10.0	+3.0/+44	High Performance, Single Supply	14 Lead PDIP

Internally Compensated, Automotive Temperature Range (–40 to +85°C)

LM2902N	0.500	10.0	—	50.00	—	1.0	0.6	±1.5/±13 (Split Supplies), +3.0/+26 (Single Supply)	Differential Low Power	14 Lead PDIP
MC3303P	0.500	8.0	10	75.00	20.0	1.0	0.6	±1.5/±18 (Split Supplies), +3.0/+36 (Single Supply)	Differential, General Purpose	14 Lead PDIP

Comparators

Single

Bipolar

Mfr.'s Type / PDIP	I_{IB} (µA) Max.	V_{IO} (mV) Max.	I_{IO} (µA) Max.	A_V (V/V) Min.	I_{IO} (mA) Min.	Response Time (ns)	Supply Voltage (V)	Description	Temperature Range (°C)	No. of Leads
LM311N	0.250	7.5	0.0500	200.0 K	8	200	+15, –15	With Strobe, Will Operate from Single Supply	0 to +70	8

Dual

Bipolar

LM393N	0.250	5.0	0.0500	200.0 K	6	1300	±1.5 to ±18 or +3.0 to +36	Designed for Single or Split Supply Operation, Input	0 to +70	8
LM2903N	0.250	7.0	0.0500	200.0 K	6	1500	±1.5 to ±18 or +3.0 to +36	Common Mode Includes Ground (Negative Supply)	–40 to +85	8

Quad

Bipolar

LM2901N	0.250	7.0	0.0500	100.0 K	6	1300	±1.5 to ±18 or +3.0 to +36	Designed for Single or Split Supply Operation, Input	–40 to +85	14
MC3302P	0.500	20.0	0.5000	30.0 K				Common Mode Includes Ground (Negative Supply)	–40 to +85	14

Voltage Regulators

Linear Voltage Regulators

Fixed Output

Mfr.'s Type — Positive Regulator: Case 29/TO-92	Case 221A	Case 369A	Case 751/SO-8	Negative Regulator: Case 29/TO-92	Case 221A	Case 369A	Case 751/SO-8	V_{out} (V)	Tol.* (V)	I_O (mA) Max.	V_{in} (V) Min./Max.	Reg_{line} (mV)	Reg_{load} (mV)	$\Delta V_O/\Delta T$ (mV/°C) Typ.
—	LM2931T-5.0	—	—	—	—	—	—	5.0	±0.50	100	5.6/40	30	50	1.00
—	—	—	—	—	—	—	—	5.0	±0.25	100	5.6/40	30	50	1.00
MC78L05ACP	—	—	MC78L05ACD	MC79L05ACP	—	—	MC79L05ACD	5.0	±0.25	100	6.7/30	150	60	1.00
—	MC78M05CT	MC78M05CDT	—	—	MC79M05CT	MC79M05CDT	—	5.0	±0.25	500	7.0/35	100	100	1.00
—	MC7805CT	—	—	—	MC7905CT	—	—	5.0	±0.25	1500	7.0/35	100	100	1.00
—	MC7805ACT	—	—	—	MC7905ACT	—	—	5.0	±0.20	1500	7.5/35	10	100	0.60
—	LM340T-5.0	—	—	—	—	—	—	5.0	±0.25	1500	7.0/35	50	50	0.60