



Amplifiers

A world-wide industry innovator in power analog. Apex precision power defines power analog in terms of product solutions that deliver output currents above 100mA or operate on voltage supplies greater than 24V.

Power Amplifier Modules

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Cirrus Logic Part No.
High voltage, high current, 10V/ μ s slew rate, 4-wire sense, +/-100V, 10A, 30-DIP	598-1412-ND	107.00	62.43	MP38CL
High voltage, high current, 10V/ μ s slew rate, 4-wire sense, +/-50V, 10A, 30-DIP	598-1414-ND	108.27	63.16	MP39CL
High voltage, high current, 10V/ μ s slew rate, 4-wire sense, +/-50V, 11A, 30-DIP	598-1415-ND	129.91	75.78	MP39CL
Dual channel, high voltage, high current, 167V/ μ s slew rate, +/-200V, 15A, 42-DIP	598-1794-ND◆	154.50	118.93	MP103FC
High voltage, high current, 100 watt dissipation capability, +/-100V, 10A, 34-DIP	598-1407-ND	253.71	89.41	MP108FD
High voltage, high current, 500kHz power bandwidth, +/-50V, 15A, 34-DIP	598-1409-ND	257.27	94.96	MP111FD
High voltage, high speed with supply voltage boost, 50V - 350V out, 150mA, 42-DIP	598-1483-ND	120.06	100.99	MP400FC

◆ RoHS Compliant

Power Op Amps

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Cirrus Logic Part No.
Wideband high power, class A/B output, 3KV/ μ s slew rate, high peak output current ±5A, 12-SIP	598-1793-ND	300.61	231.40	PA107DP
High voltage, high current, class A/B output, +/-28V, up to 5A peak, TO-3-8	598-1285-ND◆	111.35	62.42	PA01
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1286-ND◆	92.92	52.04	PA02
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1287-ND◆	120.84	67.70	PA02A
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1418-ND	247.21	138.50	PA02M
High voltage MOSFET, external sleep mode control, 50V/ μ s slew rate, 200V, 20A, MO-127-12	598-1420-ND◆	378.38	212.03	PA04
High voltage MOSFET, external sleep mode control, 50V/ μ s slew rate, 200V, 20A, MO-127-12	598-1290-ND◆	438.98	245.97	PA04A
High voltage MOSFET, external shutdown control, 100V/ μ s slew rate, 100V, 30A, MO-127-12	598-1291-ND◆	446.97	250.41	PA05
High voltage MOSFET, external shutdown control, 100V/ μ s slew rate, 100V, 30A, MO-127-12	598-1292-ND◆	534.95	479.61	PA05A
FET input, low bias current, thermal shutdown, class A/B output, 100V, 5A, TO-3-8	598-1293-ND◆	148.41	83.18	PA07
FET input, low bias current, thermal shutdown, class A/B output, 100V, 5A, TO-3-8	598-1421-ND	380.92	220.78	PA07M
FET Input, low bias current, thermal shutdown, class A/B output, 100V, 5A, TO-3-8	598-1294-ND◆	192.91	108.10	PA07A
High voltage, programmable output current limit, low bias current, +/-150V, 200mA, TO-3-8	598-1296-ND◆	160.72	90.06	PA08
High voltage, programmable output current limit, low bias current, +/-150V, 200mA, TO-3-8	598-1297-ND◆	544.62	305.12	PA08M/883
4MHz gain bandwidth, class A/B output, high output current, +/-45V, 5A, TO-3-8	598-1301-ND◆	105.17	58.93	PA10
4MHz gain bandwidth, class A/B output, high output current, +/-50V, 5A, TO-3-8	598-1302-ND◆	135.38	75.82	PA10A
4MHz gain bandwidth, class A/B output, high output current, +/-45V, 5A, TO-3-8	598-1426-ND	435.62	245.84	PA10M/883
High voltage, very high output current, class A/B output, +/-45V, 15A, TO-3-8	598-1303-ND◆	118.74	68.63	PA12
High voltage, very high output current, class A/B output, +/-50V, 15A, TO-3-8	598-1304-ND◆	145.05	83.34	PA12A
High voltage, very high output current, class A/B output, +/-45V, 15A, TO-3-8	598-1427-ND	323.31	181.16	PA12M
High voltage, very high output current, high temperature, class A/B output, +/-45V, 15A, TO-3-8	598-1305-ND◆	408.47	228.92	PA12H
High voltage, very high output current, class A/B output, +/-45V, 15A, 2-SIP	598-1307-ND◆	150.37	137.93	PA13
High voltage, low quiescent current, MOSFET input and output, 200mA continuous and 350mA pulse currents into capacitive loads, +/-450V, 10-SIP (formed leads)	598-1741-ND	200.35	102.37	PA15FU
FET input, 350kHz power bandwidth, 20V/ μ s slew rate, A/B output, +/-19V, 5A, 12-SIP	598-1429-ND	141.50	72.28	PA16
MOSFET, high current, 50V/ μ s slew rate, boost voltage inputs, +/-50V, 100A, MO-127-12	598-1313-ND◆	772.97	433.07	PA50A
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1434-ND◆	128.84	112.22	PA51
High voltage, high output current, common emitter class C output, +/-40V, 10A, TO-3-8	598-1314-ND◆	131.17	67.02	PA51A
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1435-ND	233.10	127.24	PA51M
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1315-ND	298.86	163.11	PA51M/883

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Cirrus Logic Part No.
MOSFET, high current, 50V/ μ s slew rate, boost voltage inputs, +/-100V, 80A, MO-127-12	598-1316-ND◆	669.91	375.35	PA52
MOSFET, high current, 50V/ μ s slew rate, boost voltage inputs, +/-100V, 80A, MO-127-12	598-1436-ND◆	783.84	740.30	PA52A
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1317-ND◆	115.32	58.93	PA61
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1318-ND◆	121.32	61.95	PA61A
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1437-ND	307.09	167.60	PA61M/883
High voltage, high output current, class C output, isolated case, +/-30V, 5A, TO-3-8	598-1319-ND◆	111.35	62.42	PA73
High voltage, high speed, over 200kHz power bandwidth, +/-175V, 150mA, 20-PSOP (SMT)	598-1351-ND◆	22.74	18.12	PA78DK
High voltage, 200V/ μ s slew rate, fully protected FET input, +/-15V, 50mA, TO-3-8	598-1324-ND◆	179.04	100.33	PA84
Ultra high voltage, MOSFET, 1140Vpp signal output, +/-600V, 75mA, MO-127-12	598-1329-ND◆	709.46	670.05	PA89
High voltage, MOSFET, high bandwidth, 1000V/ μ s slew rate, +/-225V, +/-200mA, 12-SIP	598-1337-ND	240.00	134.48	PA98
High voltage, MOSFET, high bandwidth, 1000V/ μ s slew rate, +/-225V, +/-200mA, 12-SIP	598-1450-ND	311.95	174.80	PA98A
Quad, power op amp, 1.1MHz, 1.5A per amp, thermal shutdown, +/-20V, MO-166-AB	598-1430-ND	16.94	13.51	PA162DK
High voltage, high current, 100 watt dissipation capability, +/-100V, 11A, 34-DIP	598-1408-ND	183.93	107.30	MP108FDA

◆ RoHS Compliant

High Voltage Power Op Amps

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Cirrus Logic Part No.
Low quiescent current, MOSFET input and output, +/-225V, 3mA, 10-SIP	598-1428-ND	154.11	78.74	PA15FL
Low quiescent current, MOSFET input and output, +/-225V, 3mA, 10-SIP	598-1309-ND	160.36	86.62	PA15FLA
High output current, FET input, low bias current, low noise, +/-75V, 15mA, TO-3-8	598-1321-ND◆	170.81	91.05	PA81J
High output current, FET input, low bias current, low noise, +/-150V, 15mA, TO-3-8	598-1441-ND◆	188.83	105.81	PA82J
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1322-ND◆	193.22	110.76	PA83
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1442-ND	464.45	253.48	PA83M
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1443-ND	595.43	324.98	PA83M/883
High voltage, 600V/ μ s slew rate, FET input, wide supply voltage range, +/-150V, TO-3-8	598-1444-ND◆	232.79	130.42	PA84A
High voltage, 200V/ μ s slew rate, FET input, wide supply voltage range, +/-150V, TO-3-8	598-1446-ND	629.79	343.69	PA84M/883
MOSFET, 1000V/ μ s slew rate, high output current, +/-225V, 200mA, TO-3-8	598-1326-ND◆	240.00	134.48	PA85
MOSFET, 1000V/ μ s slew rate, high output current, +/-225V, 200mA, TO-3-8	598-1327-ND◆	285.59	160.04	PA85A
MOSFET, high output current, low bias current, +/-225V, 100mA, TO-3-8	598-1328-ND◆	216.22	121.14	PA88
High voltage, MOSFET amp, high output current, 450V, 100mA, TO-3-8	598-1447-ND◆	281.08	157.48	PA88A
Ultra high voltage, MOSFET op amp, programmable current limit, +/-600V, 75mA, MO-127-12	598-1448-ND◆	1024.81	574.17	PA89A
300V/ μ s slew rate, high current MOSFET output, +/-200V, 200mA, 12-SIP	598-1330-ND	164.87	92.36	PA90
300V/ μ s slew rate, high current MOSFET output, +/-225V, 200mA, 12-SIP	598-1331-ND	193.34	108.36	PA91
MOSFET, low quiescent current, high output current, +/-200V, 4A, 12-SIP	598-1332-ND	207.09	116.02	PA92
MOSFET, low quiescent current, high output current, +/-200V, 8A, 12-SIP	598-1333-ND	236.94	132.76	PA93
MOSFET, 500V/ μ s slew rate, high output current, +/-450V, 100mA, 8-SIP	598-1334-ND	201.92	113.16	PA94
MOSFET, low quiescent current, high output current, +/-450V, 100mA, 8-SIP	598-1335-ND	185.47	103.92	PA95
Small signal amplifier plus power booster, 250V/ μ s slew rate, 300V, 1.5A, TO-3-8	598-1449-ND	199.04	101.66	PA96CE
MOSFET, low quiescent current, high output current, +/-450V, 10mA, 7-SIP	598-1336-ND	166.20	85.14	PA97DR
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 7-DOPAK	598-1354-ND◆	18.86	15.04	PA240CC
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-220-7	598-1355-ND◆	28.30	15.04	PA240CX
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1356-ND◆	45.17	36.00	PA241CE
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1431-ND◆	60.08	47.89	PA241CEA
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1432-ND	117.43	93.59	PA241CEM
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 24-PSOP	598-1357-ND◆	22.17	17.67	PA241DF
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 10-SIP	598-1358-ND	45.17	36.00	PA241DW

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