Inductor for Buck Converter?

<https://www.mouser.com/ProductDetail/Bourns/SDR2207-120YL?qs=sGAEpiMZZMv126LJFLh8y1WuhMuIV6OOeMLdxSujoMQ%3D>

* $0.74 for 1, $0.512 for 100
* 12 uH, 5.5 A max DC
* SMD, shielded
* 23.6 mOhm DC resistance, 15% tolerance

<https://www.mouser.com/ProductDetail/Bourns/SRR1260-120M?qs=sGAEpiMZZMv126LJFLh8y%2FbhSeFmneKHJmd8EdExwwM%3D>

* $1.09 for 1, $0.655 for 100
* 12 uH, 5.2 A max DC
* SMD shielded
* 23 mOhm DC resistance, 20% tolerance

Capacitor for Buck Converter

<https://www.mouser.com/ProductDetail/KEMET/C1812C665K1RLCAUTO7210?qs=sGAEpiMZZMsh%252B1woXyUXj0b8o8u3S4UuOT9KB%252BX9r6w%3D>

* $3.96 for 1, $2.49 for 100
* 6.6 uF, rated for 100 V DC
* SMD, 10% tolerance

<https://www.mouser.com/ProductDetail/Vishay/30D605G025BA5A?qs=sGAEpiMZZMsh%252B1woXyUXjxKTFvQRYhnFmya7LQq18Dk%3D>

* $4.94 for 1, $3.19 for 100
* 6 uF, rated for 25 V DC
* Axial,

Shotky Diode

<https://www.mouser.com/ProductDetail/ROHM-Semiconductor/YQ3RSM10SDTFTL1?qs=Z%252BL2brAPG1L3eINYZBakvg%3D%3D>

* $1.06 for 1, $0.674 for 100
* Forward current rated for 3 A, Forward voltage for 0.58 V
* Repetitive Reverse Voltage = 100 V

<https://www.mouser.com/ProductDetail/ROHM-Semiconductor/YQ5RSM10SDTFTL1?qs=Z%252BL2brAPG1Lo0jDNABA0TQ%3D%3D>

* $1.01 for 1, $0.646 for 100
* Forward current rated for 5 A, Forward voltage for 0.72 V
* Repetitive Reverse Voltage = 100 V

PMOSFET

<https://www.mouser.com/ProductDetail/ROHM-Semiconductor/RRS050P03HZGTB?qs=BJlw7L4Cy79X49P5QVR0iQ%3D%3D>

* $1.23 for 1, $.785 for 100
* Vds = 30 V, Id = 5 A, Vgs = +-20 V, Vgs threshold = 2.5 V
* 50 mOhm DS resistance

Potential Op Amps:

Best choice overall

Operational Amplifiers - Op Amps Dual Prec Low-Noise

TS5221DT

<https://www.mouser.com/ProductDetail/STMicroelectronics/TS522IDT?qs=klZz6KoonKkEbs8YxbTGLA%3D%3D>

* $2.09 for 1, $1.30 for 100
* 2 Channel
* Gain Bandwidth Product: 15 MHz
* Slew Rate: 7V/us
* Voltage Gain dB: 100
* Input Offset Voltage: 850 uV
* Supply Voltage Max/Min: 30V (+/- 15V) to 5V (+/-2.5V)
* Operating Supply Current: 5mA
* Output Current per Channel: 37 mA
* CMRR: 80 dB
* Package: SOIC-8
* Power dissipation: 500 mW
* Input Voltage Noise Density: 4.5 nV/sqrt Hz

Slightly worse than best

Same as above but 2mV offset voltage

MC33078DT

<https://www.mouser.com/ProductDetail/STMicroelectronics/MC33078DT?qs=2iXzYCp52g%2FUV59hAI7qYQ%3D%3D>

* $0.86 for 1, $0.561 for 100
* 2 Channel
* Gain Bandwidth Product: 15 MHz
* Slew Rate: 7V/us
* Voltage Gain dB: 100
* Input Offset Voltage: 2 mV
* Supply Voltage Max/Min: 30V (+/- 15V) to 5V (+/-2.5V)
* Operating Supply Current: 5mA
* Output Current per Channel: 37 mA
* CMRR: 80 dB
* Package: SOIC-8
* Power dissipation: 500 mW
* Input Voltage Noise Density: 4.5 nV/sqrt Hz

BA4580YF-MGE2

(Never heard of this supplier)

<https://www.mouser.com/ProductDetail/ROHM-Semiconductor/BA4580YF-MGE2?qs=zGux8KhMp6IoA4t2aYaNJA%3D%3D>

Best performance too pricey

Operational Amplifiers - Op Amps High Prec Low Noise Oper Amplifier

OPA2227UA/2K5

<https://www.mouser.com/ProductDetail/Texas-Instruments/OPA2227UA-2K5?qs=sGAEpiMZZMutXGli8Ay4kIKSYmYm6QhIRaDKbQks3CA%3D>

* $5.36 for 1, $3.94 for 100
* 2 Channel
* Gain Bandwidth Product: 8 MHz
* Slew Rate: 2.3V/us
* Input Offset Voltage: 200 uV
* Supply Voltage Max/Min: (+/- 18V) to 5V (+/-2.5V)
* Operating Supply Current: 3.7 mA
* Output Current per Channel: 45 mA
* CMRR: 138 dB
* Package: SOIC-8
* Input Voltage Noise Density: 3 nV/sqrt Hz

Offset voltage too high

Operational Amplifiers - Op Amps Dual Lw Nois JFET Op

TL072IDR

<https://www.mouser.com/ProductDetail/Texas-Instruments/TL072IDR?qs=1K8%2FAQHn5WQx2cVnKM%2F8fQ%3D%3D>

* $0.41 for 1, $0.245 for 100
* 2 Channel
* Gain Bandwidth Product: 3 MHz
* Slew Rate: 13V/us
* Input Offset Voltage: 6 mV
* Supply Voltage Max/Min: (+/- 18V) to 5V (+/-3.5V)
* Operating Supply Current: 1.4 mA
* Output Current per Channel: 10 mA
* CMRR: 100 dB
* Package: SOIC-8
* Input Voltage Noise Density: 18 nV/sqrt Hz
* Voltage gain dB: 106.02 dB