

FEATURES:

- Wide input range
- Continuous short-circuit protection
- Non-isolation
- Working temperature: -40℃~+85℃
- No additional components required
- Stable performance and high reliability (MTBF≥2000K hours)
- Industry standard pin-out
- SIP package



Selection Guide						
Part No.	INPUT		OUTPUT		Full Load Efficiency (%/Typ) Vin Min/Vin Max	CapacitiveLoad(μF)
	Norminal (Vdc)	Range (Vdc)	Voltage (Vdc)	Max current (mA)		
K78L03-500R3	24	4.75-36	3.3	500	86/80	680
K78L05-500R3	24	6.5-36	5	500	90/84	680
	12	7-31	-5	-300	80/81	330
K78L12-500R3	24	15-36	12	500	94/91	680
	12	8-24	-12	-150	84/85	330
K78L15-500R3	24	19-36	15	500	95/93	680
	12	8-21	-15	-150	85/87	330

customized accepted ,pls contact sales for details

Input Specifications	
Input Filter	Capacitive Filter
Ctrl	NONE
	NONE
Hot Plug	Unavailable

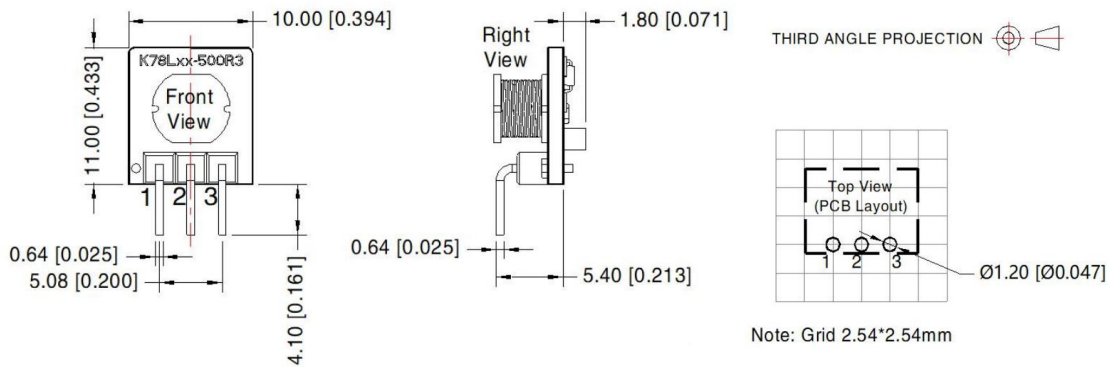
Output Specifications			
Item	Typ	Max	Test Conditions
Voltage Accuracy	±2%	±3%	Input voltage range,full load
Line Regulation	±0.2%	±0.4%	Input voltage range,full load
Load Regulation	±0.3%	-	10% to 100% full load
Ripple&Noise	50mVp-p	75mVp-p	20MHz Bandwidth, full load

General Specifications		
Switching Frequency	KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection		
Case Temperature Rise	25℃ (Typ)	
Temperature Coefficient	0.02%/℃	100% full load
Pin Soldering Resistance Temperature	250℃	Soldering spot is 1.5mm away from case for 10 seconds
Operating Temperature	-40~+85℃	

Storage Temperature	-55~+125°C	
Storage Humidity	<95%RH	Non-condensing
Cooling Method	Free air convection	
Weight	1g (Typ)	

**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25°C room temperature environment.

Dimensions and Recommended Layout

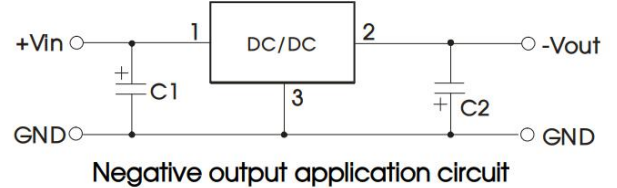
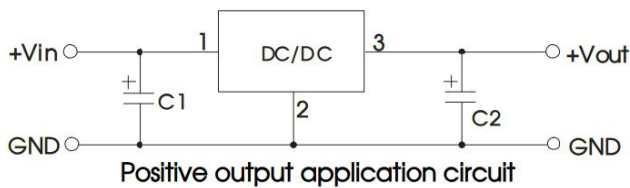


Note:
Unit: mm[inch]
Pin section tolerances: ± 0.10[± 0.004]
General tolerances: ± 0.50[± 0.020]

Pins

Pin	Positive Output	Negative Output
1	Vin	Vin
2	GND	-Vo
3	+Vo	GND

Recommended Circuit



Recommended input and output capacitor values

Part Number	C1/C3 (Ceramic capacitor)	C2/C4 (Ceramic capacitor)		
K78L03-500R3	10uF/50V	22uF/10V		
K78L05-500R3		22uF/10V		
K78L12-500R3		22uF/25V		
K78L15-500R3		22uF/25V		

Note

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.

*The final interpretation right of the product belongs to ECCO ELECTRONICS.