

FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- Non-isolation
- Working temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- No additional components required
- Stable performance and high reliability (MTBF $\geq$ 2000K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94V-0 requirements



Selection Guide

Part No.	INPUT		OUTPUT		Full Load Efficiency (%/Typ) Vin Min/Vin Max	Capacitive Load(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Max current (mA)		
K78X2-2000R3	24	4.5-28	1.8	2000	83/79	2000
K7802-2000R3	24	4.5-36	2.5	2000	89/83	2000
	12	8-32	-2.5	1000	86/80	1000
K7803-2000R3(L)	24	6-36	3.3	2000	89/85	1800
	12	8-31	-3.3	1000	85/83	1000
K7805-2000R3(L)	24	8-36	5	2000	92/89	1000
	12	8-30	-5	1000	86/84	680
K78X6-2000R3(L)	24	10-36	6.5	2000	92/89	1000
	12	8-29	-6.5	1000	85/83	680
K7809-2000R3(L)	24	13-36	9	2000	95/92	680
	12	8-26	-9	800	86/81	330
K7812-2000R3(L)	24	16-36	12	2000	96/94	470
	12	8-23	-12	600	87/85	220
K7815-2000R3	24	18-36	15	2000	96/94	470
	12	8-20	-15	600	87/87	220

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter	
Ctrl	NONE	
	NONE	
Hot Plug	Unavailable	

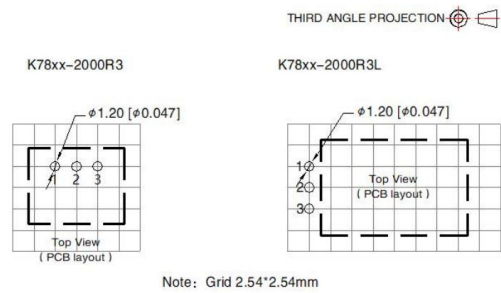
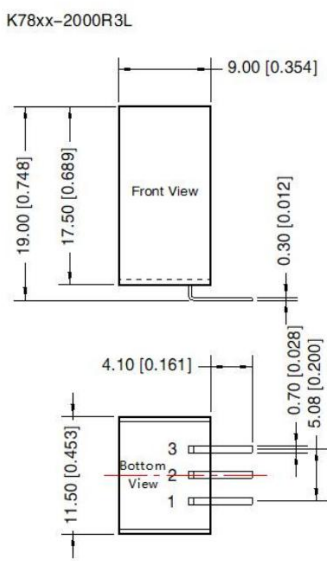
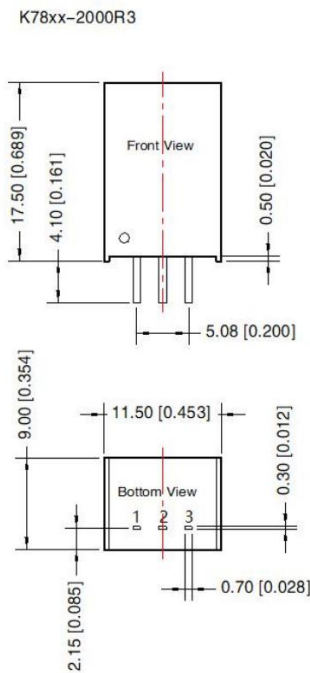
Output Specifications

Item	Typ	Max	Test Conditions
Voltage Accuracy	$\pm 2\%$	$\pm 3\%$	input voltage range and load
Line Regulation	$\pm 0.4\%$	$\pm 0.8\%$	Input voltage from low to high voltage, full load
Load Regulation	$\pm 0.5\%$	$\pm 1.5\%$	10% to 100% full load

Ripple&Noise	50mVp-p	75mVp-p	20MHz Bandwidth, full load
Gernerla Specifications			
Switching Frequency	350KHz(Typ)		100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery		
Case Temperature Rise	25℃（Typ）		
Temperature Coefficient	0.02%/℃		100% full load
Pin Soldering Resistance Temperature	300℃		Soldering spot is 1.5mm away from case for 10 seconds
Operating Temperature	-40～+85℃		
Storage Temperature	-55～+125℃		
Storage Humidity	<95%RH		Non-condensing
Cooling Method	Free air convection		
Case Material	Black plastic; flame-retardant and heat-resistant (UL94V-0)		
Weight	3.6g（Typ）		

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

Dimensions and Recommended Layout

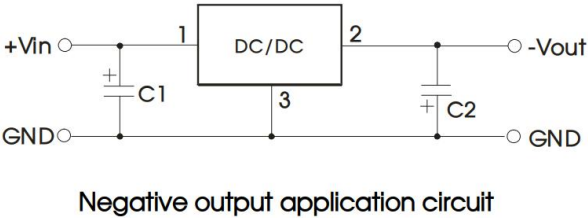
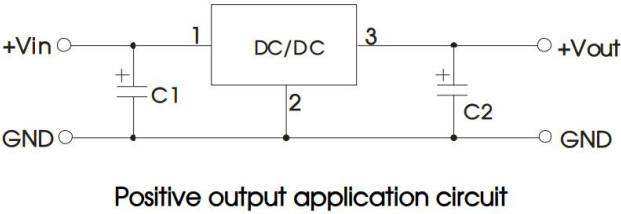


Note:
Unit: mm[inch]
Pin diameter tolerances: $\pm 0.10 [\pm 0.004]$
General tolerances: $\pm 0.50 [\pm 0.020]$

Pins			
Pin	Positive Output	Nagetive Output	
1	Vin	Vin	

2	GND	-Vo	
3	+Vo	GND	

Recommended Circuit



Recommended input and output capacitor values				
Part Number	C1 (Ceramic capacitor)	C2 (Ceramic capacitor)		
K78X2-2000R3	22uF/50V	22uF/10V		
K7802-2000R3		22uF/10V		
K7803-2000R3(L)		22uF/10V		
K7805-2000R3(L)		22uF/10V		
K78X6-2000R3(L)		22uF/10V		
K7809-2000R3(L)		22uF/16V		
K7812-2000R3(L)		22uF/25V		
K7815-2000R3		22uF/25V		

Noted

- 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.