FEATURES：

- Wide input range
- Continuous short-circuit protection,self recover
- Non-isolation
- Working temperature：-40℃～+85℃
- No additional components required
- Stable performance and high reliability (MTBF≥2000K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94V-0 requirements
- 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)		
K7803M-1000R3	24	6-36	3.3	1000	90/80	680
K7805M-1000R3	24	8-36	5	1000	93/85	680
	12	8-27	-5	-500	86/81	330
K78X6M-1000R3	24	10-36	6.5	1000	93/85	680
K7809M-1000R3	24	13-36	9	1000	94/89	680
K7812M-1000R3	24	16-36	12	1000	95/92	680
	12	8-20	-12	-300	88/87	330
K7815M-1000R3	24	20-36	15	1000	96/93	680
	12	8-18	-15	-300	87/88	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%	±4%	input voltage range and load
Line Regulation	±1.5%	±3%	Input voltage from low to high voltage, full load
Load Regulation	±0.4%	±0.6%	10% to 100% full load
Ripple&Noise	50mVp-p	75mVp-p	20MHz Bandwidth, full load

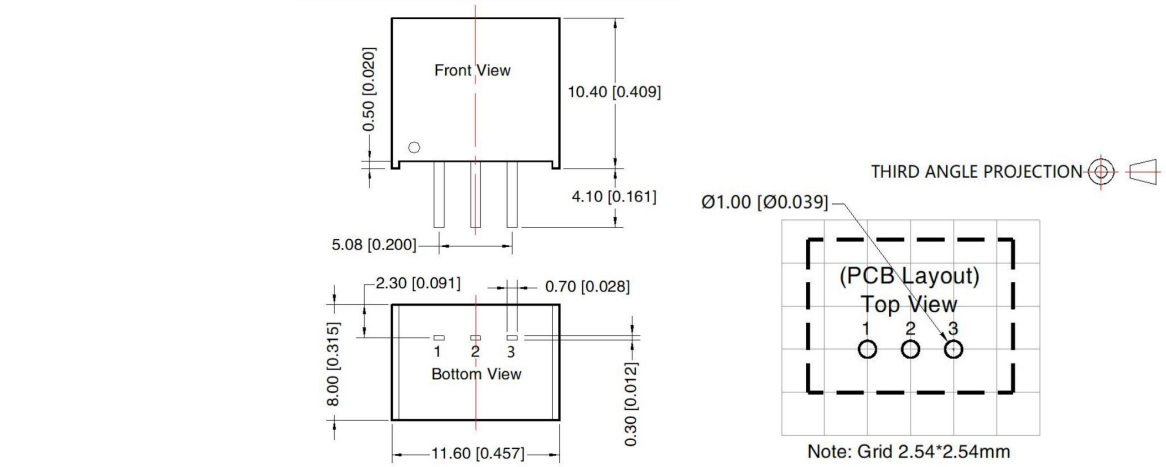
Gerneral Specifications

Switching Frequency	450KHz(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	1.8g（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

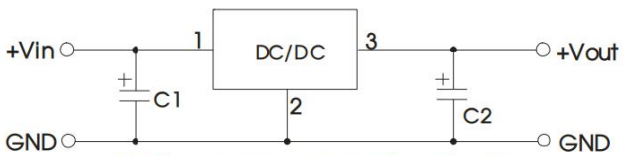


Note:
Unit: mm[inch]
Pin section tolerances: ±0.10[±0.004]
General tolerances: ±0.50[±0.020]

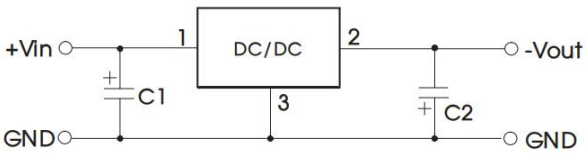
Pins

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

Recommended Circuit



Positive output application circuit



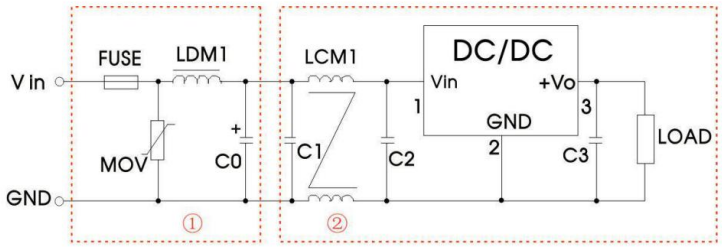
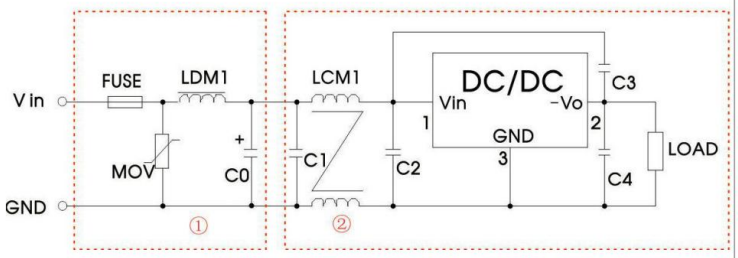
Negative output application circuit

Recommended input and output capacitor values

Part Number	C1/C3 (Ceramic capacitor)	C2/C4 (Ceramic capacitor)		
K7803M-1000R3	10uF/50V	22uF/10V		

K7805M-1000R3		22uF/10V		
K7806M-1000R3		22uF/16V		
K7809M-1000R3		22uF/16V		
K7812M-1000R3		22uF/25V		
K7815M-1000R3		22uF/25V		

EMC Compliance circuit

	EMC recommended compliance circuit	Parameter description
Positive Output		FUSE: Select fuse value according to actual input current MOV: S20K30 LDM1: 82μH C0: 680μF /50V LCM1: 4.7mH C1/C2: 4.7μF /50V C3: Refer to the Cout in table 1
Negative Output		FUSE: Select fuse value according to actual input current MOV: S20K30 LDM1: 82μH C0: 680μF /50V LCM1: 4.7mH C1/C3/C4: 4.7μF /50V C2: 10μF /50V

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.