FEATURES：

- Wide input range
- Continuous short-circuit protection,self recover
- Non-isolation
- Working temperature：-40℃～+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥3500K hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94-V0 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)		
K78U03-500R3（L）	48	9-90	3.3	500	69/82	100
K78U05-500R3（L）	48	9-90	5	500	87/75	
K78UX6-500R3（L）	48	9-90	9	500	78/91	
K78U09-500R3（L）	48	14-90	12	500	80/91	
K78U12-500R3（L）	48	18-90	15	500	83/91	
K78U15-500R3（L）	48	20-90	24	500	84/93	
K78U24-300R3（L）	48	36-90	3.3	300	85/93	

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	±1%	±3%	input voltage range and load
Line Regulation	±0.2%	±0.5%	Input voltage from low to high voltage, full load
Load Regulation	±0.5%	±1%	10% to 100% full load
Ripple&Noise	50mVp-p	150mVp-p	20MHz Bandwidth, full load

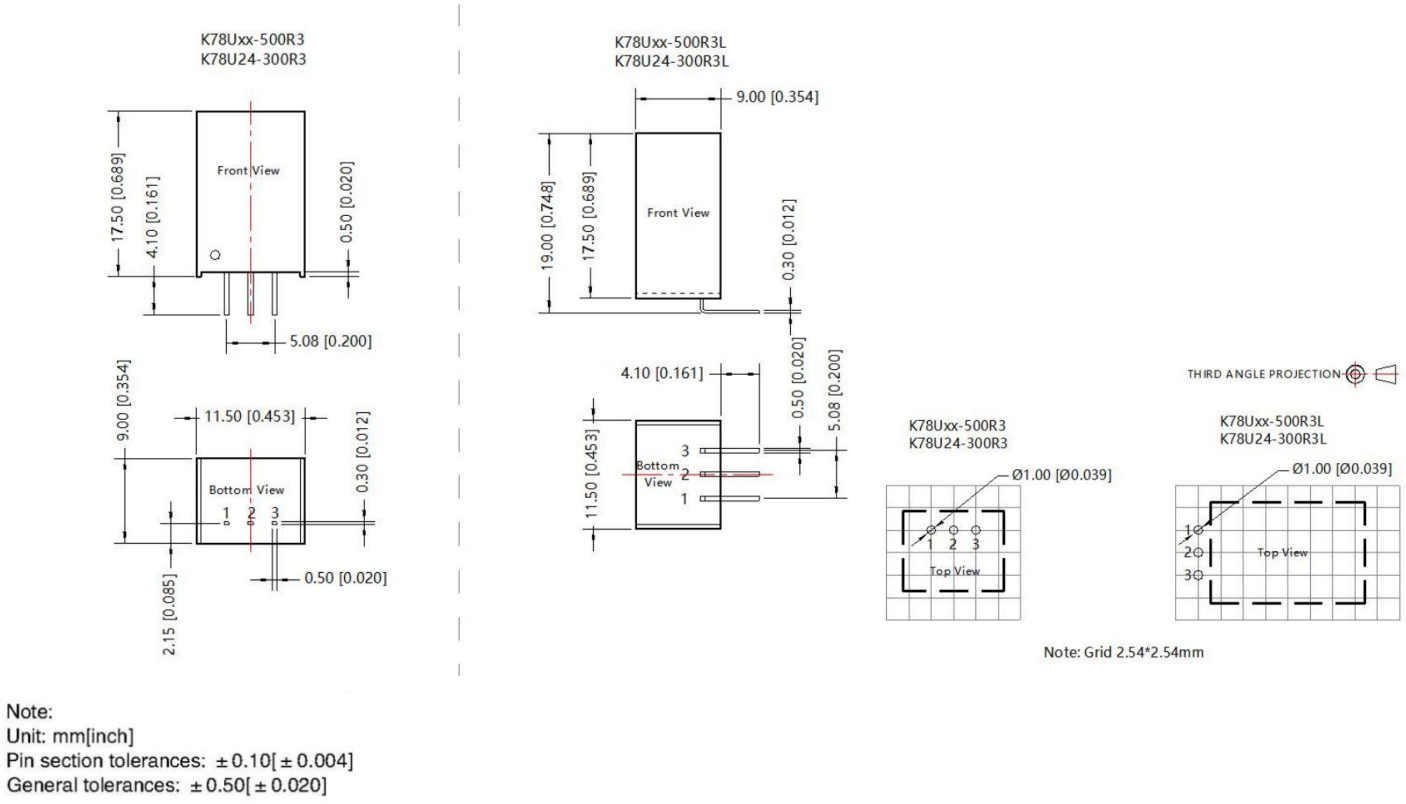
Gerneral Specifications

Switching Frequency	300KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	15℃（Typ）	
Temperature Coefficient	0.03%/℃	100% full load
Pin Soldering Resistance Temperature	300℃	Soldering spot is 1.5mm away from case for 10 seconds

Isolation（Input-Output）	1.5KVDC	Input-output electric strength test for 1 minute with a leakage current
Insulation Resistance（Input-Output）	1000MΩ	Input-output resistance 500Vdc
Operating Temperature	-40～+105℃	
Storage Temperature	-55～+125℃	
Storage Humidity	<95%	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	1.3g（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

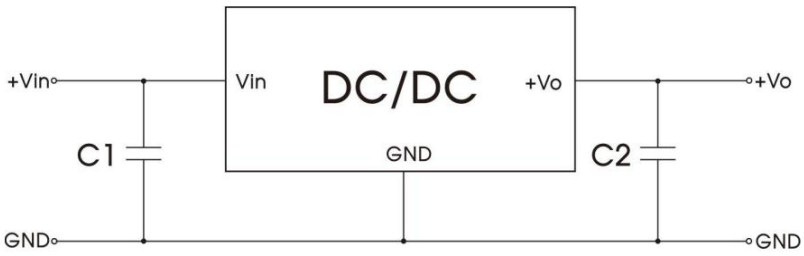


Note:
Unit: mm[inch]
Pin section tolerances: ±0.10[±0.004]
General tolerances: ±0.50[±0.020]

Pins

Pin	Mark		
1	Vin		
2	GND		
3	+Vo		

Recommended Circuit



Recommended input and output capacitor values				
Part Number	C1	C2		
K78U03-500R3(L)	10uF/100V	22uF/10V		
K78U05-500R3(L)		22uF/10V		
K78U06-500R3(L)		22uF/10V		
K78U09-500R3(L)		22uF/16V		
K78U12-500R3(L)		22uF/25V		
K78U15-500R3(L)		22uF/25V		
K78U24-300R3(L)		10uF/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.