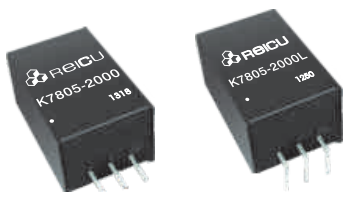
Features

- I/O non-isolation
- Efficiency up to 92%
- No heat sink required
- Single regulated output
- Short circuit protection
- Pin-out compatible with LM78 linears
- Low ripple and noise
- Wide temperature performance: -40℃ to 85℃



Description

The K78xx-2000 series are high efficiency switching regulators are suited to replace 78xx linear regulators and pin compatible.The high efficinecy performance means it is no need heat sink.Used in industry control system,wireless network, microprocessor power application,telecom/datacom.

Model Selection Guide

Order Code	Vin(V)		Output		Efficiency(%) (Typ)	
	Naminal	Range	Vo(V)	Io(mA)	Min(Vin)	Max(Vin)
K78X2-2000(L)	12	4.75~18	1.8	2000	80	78
K7802-2000(L)		4.75~18	2.5	2000	84	83
K7803-2000(L)		4.75~18	3.3	2000	87	85
K7805-2000(L)		7~18	5	2000	90	87
K78X6-2000(L)		9~18	6.5	2000	92	90

*All the specifications typical at Ta=+25℃ resistive load, nominal input voltage and rated output current unless otherwise noted.

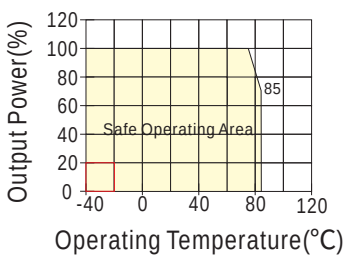
Output Characteristics

Parameter	Condition	Min	Typ	Max	Units
Output voltage accuracy	10%～100% load	--	±1	±2	%
Line regulation	At input voltage range	--	±0.15	±0.3	%
Switching frequency	Full load,nominal input	--	330	--	KHz
Load regulation	10%～100% load	--	±0.3	±0.5	%
Ripple and noise	BW=DC to 20MHz	--	50	--	mVp-p
Dynamic load response	50%～100% load	--	500	--	uS
Temperature coefficient(%/℃)		--	--	0.02	%/℃
Quiescent current		--	10	--	mA
Short circuit Protection		Continuous,Automatic Recovery			

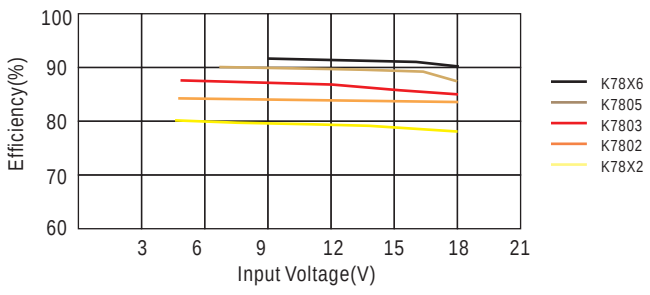
General Characteristics

Parameter	Condition	Min	Typ	Max	Units
Operating Temperature	All output types	-40	--	+85	℃
Storage		-55	--	+125	℃
Storage humidity		--	--	+95	%
Cooling	Free air convection				
MTBF	3.5×10^6				K hours
Case material		Plastic (UL94-V0)			

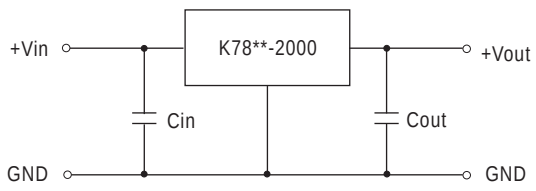
Temperature Derating Graph Curve

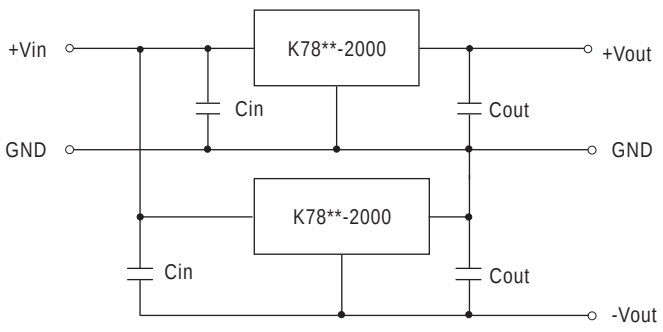


Efficiency VS Input Voltage Curve



Application





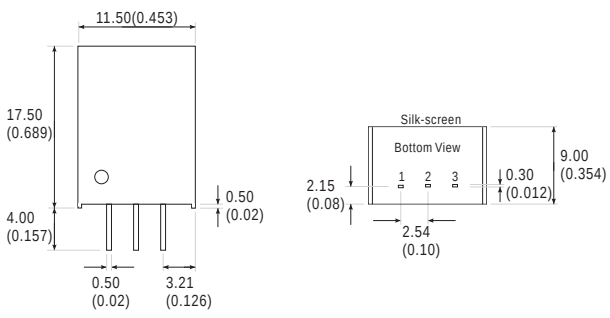
Note：

1.Cin and Cout are required and should be fitted close to the converter pins.

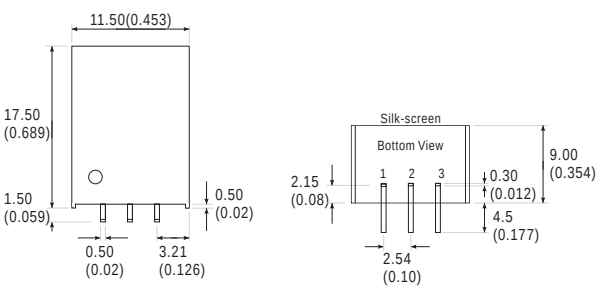
2.The capacitance of Cin and Cout are recommended 10-47uF capacitor. It can be increased properly if required,and tantalum or low ESR electrolytic capacitors may also suffice.

Mechanical Dimension & Pin Connections

K78**-2000



K78**-2000L



Note:
Unit:mm(inch)

Pin	1	2	3
Function	+Vin	GND	+Vo