

SK-78xx-1000R5



FEATURES :

- 3PIN SIP Package
- Pin-out compatible with LM78XX Linear
- Efficiency up to 95%, Non isolated, no need for heatsinks
- UL94V-0 package material
- Operating temperature from -40°C to +85°C
- No-load input current as low as 0.1mA
- Short circuit protection

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Range	Output Voltage	Output Current	Efficiency (%)		Capacitive Load
	Vdc	Vdc	mA	Min. Vin	Max. Vin	μF max
SK-7803-1000R5	4.75-36	3.3	1000	90	81	680
SK-7805-1000R5	6.5-36	5.0	1000	93	86	680
	6.5-27	-5.0	-500	86	82	330
SK-7806-1000R5	9.0-36	6.5	1000	93	86	680
SK-7809-1000R5	12-36	9.0	1000	95	90	680
SK-7812-1000R5	15-36	12	1000	96	93	470
	8-20	-12	-300	89	88	330
SK-7815-1000R5	18-36	15	1000	95	93	470
	8-18	-15	-300	89	89	330

Note: (L) Add a suffix to bend the feet 90° , e.g. SK-7805-1000R5L

Output Specifications

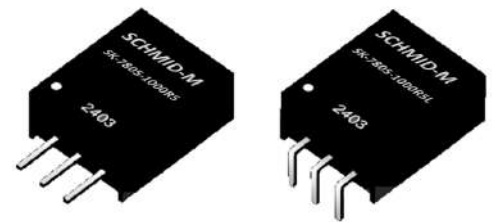
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			2	±3	%
Short Circuit Protection	Continuous, automatic recovery				
Line Regulation	Full load, input voltage range		±0.2	±0.5	%
Load Regulation	Nominal input, 10% -100% load		±0.3	±0.6	%
Ripple & Noise (without Output Capacitor)	(BW=DC To 20MHz)			75	mVp-p
Transient response setting time	50% load step change		250		us

DC-DC Converter

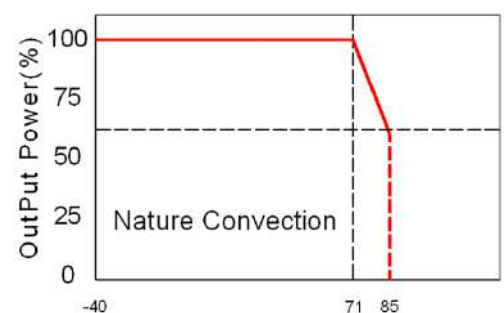
Non-Isolated

Single Output

0.453"*0.335"*0.68"



Temperature Derating Graph



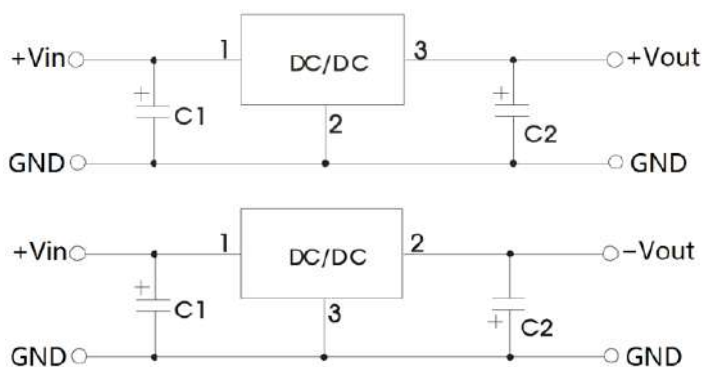
Electromagnetic Compatibility (EMC)

EMI	CE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)		
	RE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)		
EMS	ESD	IEC/EN61000-4-2	Contact $\pm 4\text{kV}$	perf. Criteria B
	RS	IEC/EN 61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN 61000-4-4	$\pm 1\text{kV}$	perf. Criteria B
	Surge	IEC/EN 61000-4-5	line to line $\pm 1\text{kV}$	perf. Criteria B
	CS	IEC/EN 61000-4-6	3Vr.m.s	perf. Criteria A

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency			440		KHz
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Non-Conductive Black Plastic				
Weight			2.0		g
Dimensions			11.50x8.50x17.50		mm
			19.00x11.50x8.50		mm
MTBF(+25°C)	using MIL-HDBK 217F		5000x10 ³		hours
MTBF(+71°C)	using MIL-HDBK 217F		1000x10 ³		hours

Recommended Test Circuit



Vout	C1	C2
3.3	10 $\mu\text{F}/50\text{V}$	22 $\mu\text{F}/10\text{V}$
5		22 $\mu\text{F}/10\text{V}$
6.5		22 $\mu\text{F}/16\text{V}$
9		22 $\mu\text{F}/16\text{V}$
12		22 $\mu\text{F}/25\text{V}$
15		22 $\mu\text{F}/25\text{V}$

EMC (CLASS B) Compliance Circuit

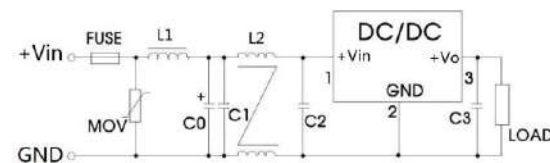
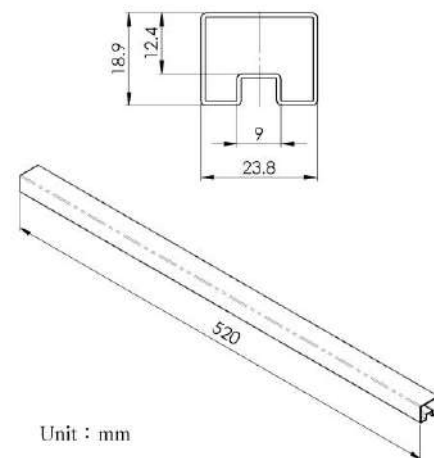


Fig.1

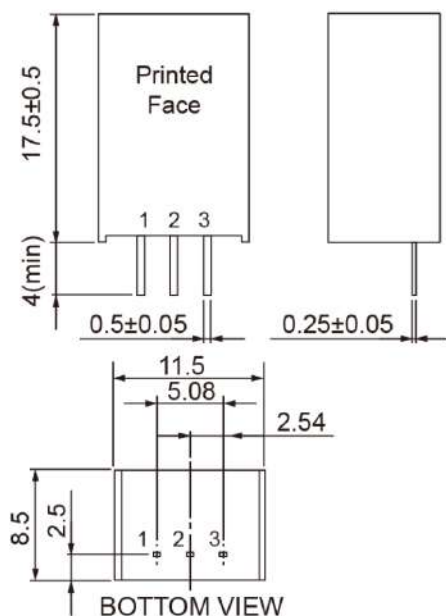
FUSE	Select fuse value according to actual input current
MOV	S20K30
L1	82 μH
C0	680 $\mu\text{F}/50\text{V}$
L2	4.7mH
C1, C3, C4	4.7 $\mu\text{F}/50\text{V}$
C2	10 $\mu\text{F}/50\text{V}$

Packing Formation

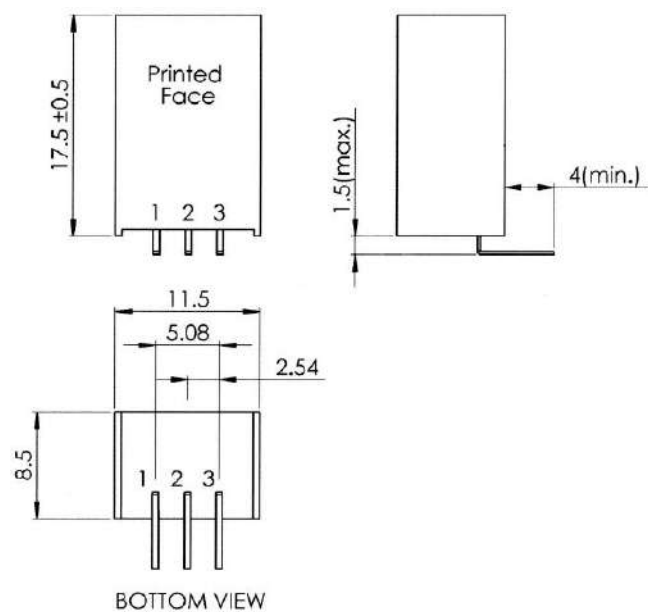


Weight	:	4.0 grams/pcs
Tube	:	42 pcs

Markings and Dimensions



Unit : mm Tolerance : $XX.X \pm 0.5$, $XX.XX \pm 0.25$



Unit : mm
Tolerance : $XX.X \pm 0.5$, $XX.XX \pm 0.25$

PIN Connection

PIN	1	2	3
SINGLE	+Vin	GND	+Vout