

Non-Isolated Single Output Dc-Dc Converter

FEATURES:

- 3PIN SIP Package
- Pin-out compatible with LM78XX Linears
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +85°C
- Efficiency up to 96%,Non isolated,no need for heatsinks
- Low profile(L*W*H=11.5*8.5*17.5mm)
- Short circuit protection,Thermal shutdown
- High voltage input range,up to 72V



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	
	Vdc	Vdc	mA	Min.Vin(%)	Max.Vin(%)
AS500R-3.3VCF	9-72	3.3	500	81	72
AS500R-5.0VCF	9~72	5.0	500	87	80
AS500R-6.5VCF	9~72	6.5	500	91	80
AS500R-9.0VCF	14~72	9.0	500	92	85
AS500R-12VCF	17~72	12	500	94	88
AS500R-15VCF	21~72	15	500	94	90
AS500R-24VCF	36~72	24	300	96	92

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Input Voltage Range	See table	9	48	72	V
Internal Input Filter				2.2	uF
Quiescent Current	Vin=48VDC	1	5	7	mA

Output Specifications

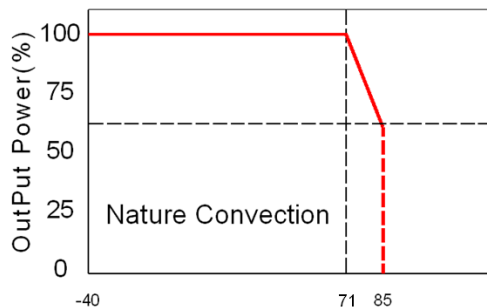
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			±2	±3	%
Short Circuit Protection	Continuous, automatic recovery		Continuous, automatic recovery		
Line Regulation	Vin= min. to max. at full load		±0.3	±0.5	%
Load Regulation	10% To 100% full load		±0.4	±0.5	%
Ripple & Noise (without Output Capacitor)	10% To 100% full load			60	mVp-p
Transient response setting time	50% load step change		350	500	us
Capacitive load				100	uF

General Specifications

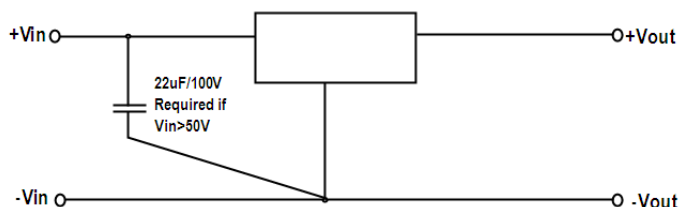
Parameters	Conditions	Min	Typ	Max	Units
Switching Frequency	Full Load	150		500	KHz
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C
Temperature Coefficient	-40°C~+85°C ambient			0.015%	°C
Thermal Shoutdown	Internal IC junction			165	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	Non-Conductive Black Plastic				
Solder Temperature				265 / 10sec.	°C
Potting Material				Epoxy(UL94V-0)	
Conducted Emissions	EN55022			Class B	
Radiated Emissions	EN55022			Class B	
ESD	EN61000-4-2			Class A	
Weight			4.0		g
Dimensions			11.5x8.5x17.5		mm
MTBF(+25°C)	using MIL-HDBK 217F		7395x10 ³		hours
MTBF(+71°C)	using MIL-HDBK 217F		1242x10 ³		hours

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Temperature Derating Graph



Application Examples

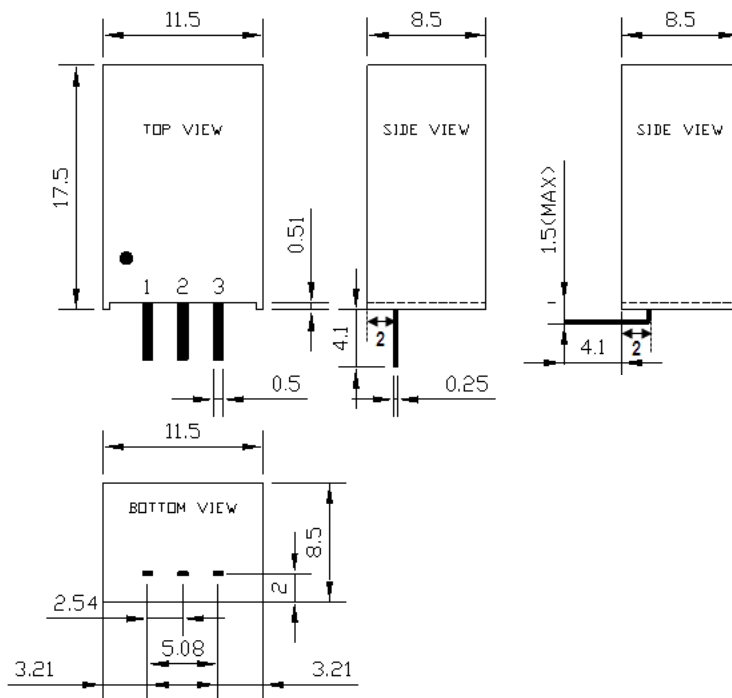


Part Number

AS500 R - 1.5 V C F
1 2 3 4 5 6

- 1:Series
- 2:Regulated
- 3:Output Voltage
- 4:Case
- 5:Short Circuit Protection Continuous
- 6:Efficiency up to 97%

Markings and Dimensions



UNIT: mm Unless otherwise specified, all tolerances are ± 0.25

PIN Connection

PIN	1	2	3
SINGLE	+Vin	GND	+Vout