

**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 94%,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(%)
08D-3R3-500	9~72	3.3	500	81	72
08D-05-500	9~72	5.0	500	87	80
08D-6R5-500	9~72	6.5	500	91	82
08D-09-500	14~72	9.0	500	92	86
08D-12-500	17~72	12	500	94	89
08D-15-500	20~72	15	500	94	90
08D-24-300	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**

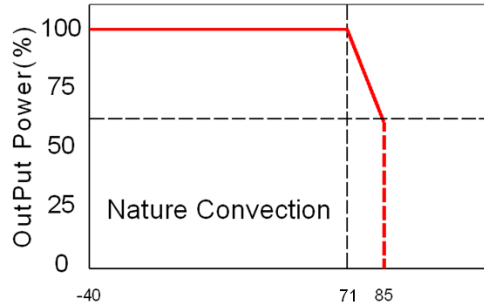
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance			±2	±3	%
Short Circuit Protection	Continuous, automatic recovery		Continuous, automatic recovery		
Line Regulation	Vin= min. to max. at full load		±0.3	±0.5	%
Load Regulation	10% To 100% full load		±0.4	±0.5	%
Ripple & Noise (without Output Capacitor)	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 <sup>3</sup>		hours
MTBF(+71°C)	using MIL-HDBK 217F		1242x10 <sup>3</sup>		hours

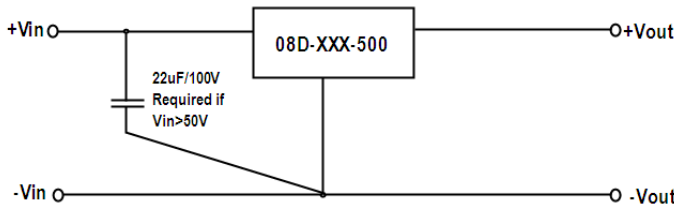
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**Temperature Derating Graph**



**Application Examples**

**Part Number**



08D - 05 - 500

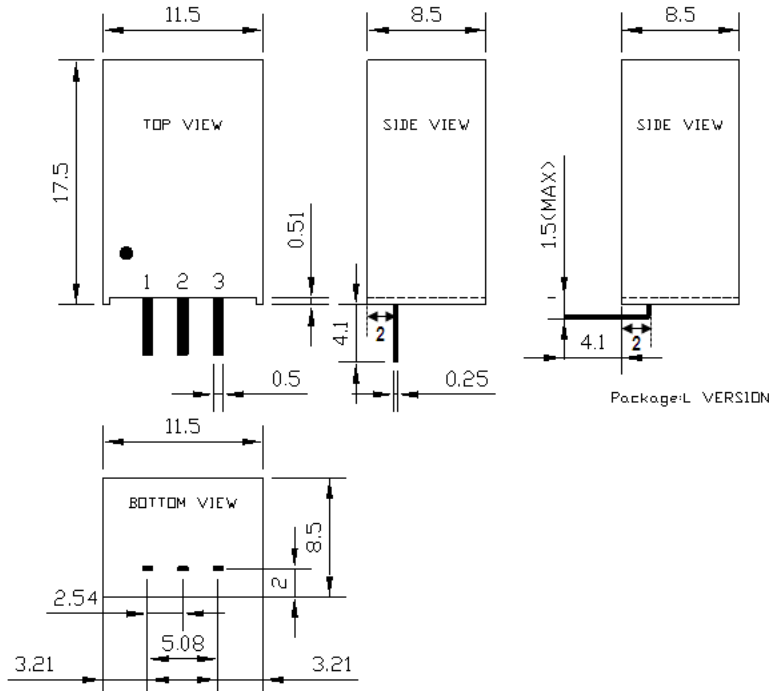
A B C

A: Series

B: Output Voltage

C: Output Current

**Markings and Dimensions**



UNIT: mm Unless otherwise specified, all tolerances are  $\pm 0.25$

**PIN Connection**

PIN	1	2	3
SINGLE	+Vin	GND	+Vout