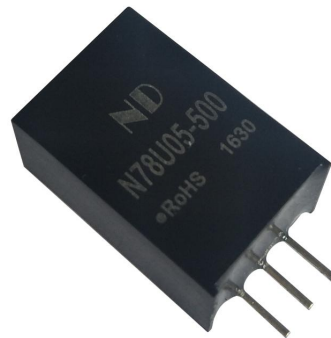


NDDY	N78UXX-500	0.5A, ULTRA-WIDE INPUT, NON-ISOLATED & REGULATED SINGLE OUTPUT DC/DC CONVERTER
	PRODUCT SPECIFICATION	

● **FEATURES**

- Size: 11.6mm*9.0mm*17.6mm
- International standard pin-out
- Ultra-wide input voltage range
- Low ripple & noise
- Short circuit protection
- ROHS compliant
- Operating temperature range: -40°C ~ +85°C
- 3 years warranty



● **DESCRIPTION**

This is a high efficiency switching regulator with ultra-wide input voltage. It is widely used in communications equipment, power system, instrumentation, industrial control, intelligent equipment, and etc.

● **PRODUCT LIST**

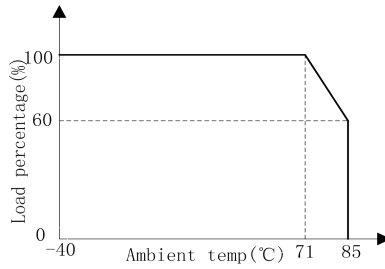
Product Name	Input Voltage / VDC		Output		EFF/% (TYP.)	
	Normal	Range	Voltage/VDC	Current/mA	@Vin Min	@Vin Max
N78U03-500	48	9~72	3.3	500	82	75
N78U05-500		9~72	5	500	87	81
		9~65	-5	-400	76	70
N78U09-500		14~72	9	500	92	86
		10~60	-9	-300	80	76
N78U12-500		17~72	12	500	93	89
	10~55	-12	-300	83	80	

● **PRODUCT PARAMETERS**

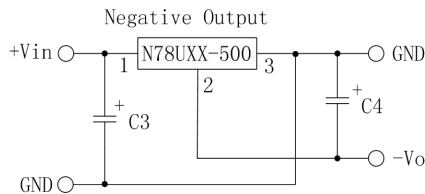
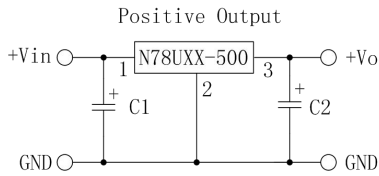
Parameter	Conditions / Description		Min	Nom	Max	Unit
Voltage accuracy	10%-100%Io		-	±2	±5	%
Load regulation	10%-100%Io		-	±0.5	±1	%
Line regulation	100%Io, input voltage range		-	±0.2	±0.5	%
Ripple & Noise	20MHz BW	5Vo	-	50	-	mVp-p
		Other output	-	100	-	
Switching frequency	Nominal input voltage, 100%Io		-	330	-	kHz
SCP	Short circuit protection		Continuous, self-recovery			
Temperature coefficient	Nominal input voltage, 100%Io		-	0.02	-	%/°C
Operating temperature			-40	-	+85	°C
Storage temperature			-40	-	+125	°C

Storage humidity	No condensing	-	-	95	%RH
Cooling method		Natural air cooling			
Insulation resistance	Input-output, 500VDC, 25°C, 70%RH	1000	-	-	MOhms
MTBF	MIL-HDBK-217F@25°C	100	-	-	KHours
Case material		Black flame retardant plastic			
Weight		-	4.0	-	g

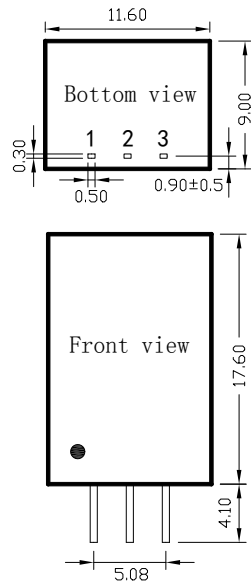
● DERATING CURVE



● TYPICAL APPLICATION

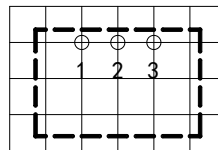


● DIMENSIONS AND PIN ASSIGNMENT



PIN	1	2	3
FUN	+Vin	GND	+Vo

Recommended PCB LAYOUT



Note1: Grid is 2.54mm*2.54mm
Note2: Hole diameter is advised 1.0mm

Unit: mm
General tolerance: ±0.25

● NOTES

1. Unless otherwise specified, data in this specification is tested with nominal input voltage, rated output load, and Ta=25°C, humidity<75%RH.
2. All data testing methods are based on Guangzhou NengDa company standards.
3. Specification of the product may be subject to change without prior notice.
4. All right reserved by Guangzhou NengDa Power Supply Technology Co., Ltd.