

### 10W DC-DC Regulated Single Output

# NSD10-S series



#### ■ Features :

- Wide 4:1 DC input range
- Protections: Short circuit / Overload / Over voltage
- 1000VDC I/O isolation
- Built-in EMI filter
- 100% full load burn-in test
   Lost cost

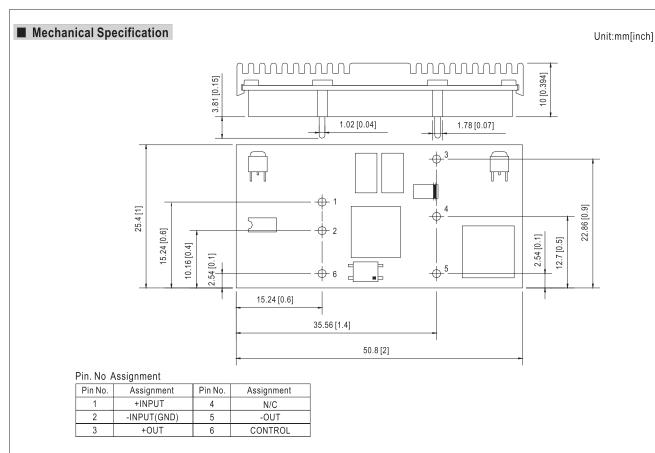
- High reliability
- 2 years warranty

SPECIFICATION

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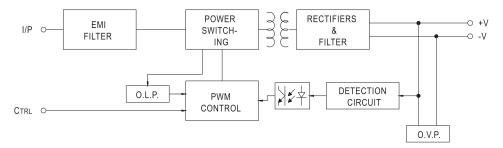
MODEL		NSD10-12S3	NSD10-12S5	NSD10-12S9	NSD10-12S12	NSD10-12S15	NSD10-48S3	NSD10-48S5	NSD10-48S9	NSD10-48S12	NSD10-48S15
ОИТРИТ	DC VOLTAGE	3.3V	5V	9V	12V	15V	3.3V	5V	9V	12V	15V
	RATED CURRENT	2.5A	2A	1.1A	0.83A	0.67A	2.5A	2A	1.1A	0.83A	0.67A
	CURRENT RANGE	0.12 ~ 2.5A	0.1 ~ 2A	0.05 ~ 1.1A	0.04 ~ 0.83A	0.03 ~ 0.67A	0.12 ~ 2.5A	0.1 ~ 2A	0.05 ~ 1.1A	0.04 ~ 0.83A	0.03 ~ 0.67A
	RATED POWER	8.25W	10W	9.9W	9.96W	10.05W	8.25W	10W	9.9W	9.96W	10.05W
	CAPACITIVE LOAD (max.)	3300uF									
	RIPPLE & NOISE (max.) Note.2 75mVp-p										
	VOLTAGE TOLERANCE Note.3	e.3 <sub>+1</sub> 2.0% max.									
	LINE REGULATION	+11.0%	-45								
	LOAD REGULATION	+12.0%	+11.0%	+11.0%	+11.0%	+11.0%	+12.0%	+11.0%	+11.0%	+11.0%	+11.0%
INPUT	RATED DC INPUT	12VDC	075				48VDC		1		
	VOLTAGE RANGE	9.8 ~ 36VDC 22 ~ 72VDC									
	EFFICIENCY (Typ.)	72%	75%	78%	79%	80%	74%	77%	78%	79%	80%
	DC CURRENT	1.4A/12VD0	;				0.4A/48VD0				
	SHUTDOWN IDLE CURRENT	20mA/12VDC									
PROTECTION		Above 105% rated output power									
	OVERLOAD			•	ecovers autor	natically after	fault condition	on is removed	-	750.	
	OVER VOLTAGE(CLAMP)									13.8 ~ 18V	17.3 ~ 22.5\
	SHORT CIRCUIT Note.4	3.8 ~ 4.95V   5.75 ~ 7.5V   10.4 ~ 13.5V   13.8 ~ 18V   17.3 ~ 22.5V   3.8 ~ 4.95V   5.75 ~ 7.5V   10.4 ~ 13.5V   13.8 ~ 18V   17.3 ~ 22.5V   17.3 ~ 22.5V									
FUNCTION	ON/OFF CONTROL	Logic "1" OPEN: ON logic "0" GND: OFF									
ENVIRONMENT	WORKING TEMP.	-25 ~ +70°C									
	WORKING HUMIDITY	0% ~ 95% RH max.									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 0 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%°C (0~60°C)									
SAFETY &	SAFETY STANDARDS	UL60950-1 approved, Design refer to TUV EN60950-1									
	ISOLATION VOLTAGE	I/P-O/P:1KVDC									
EMC	ISOLATION RESISTANCE	I/P-O/P:100M Ohms/500VDC 25°C 70%RH									
(Note 5)	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B									
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; EN55024, light industry level, criteria A									
OTHERS	MTBF	2138.2K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	50.8*25.4*10mm (2"*1"*0.394") (L*W*H)									
	PACKING	0.02Kg; 300pcs/7Kg/0.97CUFT									
NOTE	1. All parameters NOT specia 2. Ripple & noise are measur 3. Tolerance: includes set up 4. Short circuit not more than 5. The power supply is consic EMC directives. 6. For the input line, a 220uF/ 7. EMC filter suggestion:    SOUH	ed at 20MHz tolerance, lir 60 seconds. dered a comp	of bandwidth ne regulation onent which lytic capacito	n by using a and load reg	12" twisted paulation. ed into a fina	a <mark>ir-wi</mark> re termi I equipment.	nated with a	0.1uf & 47uf	parallel capa		ill meets





#### **■** Block Diagram

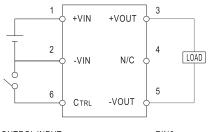
fosc: 350KHz



#### ■ Derating Curve

## 100 80 75 60 20 -25 -10 0 10 20 30 40 50 60 70 (HORIZONTAL) AMBIENT TEMPERATURE (°C)

#### ■ ON/OFF Control



CONTROL INPUT.....PIN6

CONTROL COMMON.....PIN2

LOGIC COMPATIBILITY......CMOS OR OPEN COLLECTOR TTL

CONTROL VOLTAGE

ON.....+5.5VDC min. OR OPEN CIRCUIT

OFF.....+2.5VDC max. OR SHORT TO PIN2