

# NSD10-D series



## 10W DC-DC Regulated Dual Output



### ■ Features :

- Wide 4:1 DC input range
- Protections: Short circuit / Overload / Over voltage
- 1000VDC I/O isolation
- Built-in EMI filter
- Cooling by free air convection
- Built-in remote ON-OFF control
- 100% full load burn-in test
- Lost cost
- High reliability
- 2 years warranty



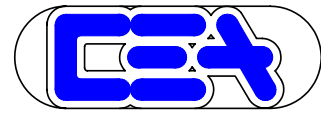
### SPECIFICATION

MODEL		NSD10-12D5		NSD10-12D12		NSD10-12D15		NSD10-48D5		NSD10-48D12		NSD10-48D15				
OUTPUT	DC VOLTAGE	5V	-5V	12V	-12V	15V	-15V	5V	-5V	12V	-12V	15V	-15V			
	RATED CURRENT	1A	1A	0.42A	0.42A	0.33A	0.33A	1A	1A	0.42A	0.42A	0.33A	0.33A			
	CURRENT RANGE	0.05 ~ 1A	0.05 ~ 1A	0.02 ~ 0.42A	0.02 ~ 0.42A	0.016 ~ 0.33A	0.016 ~ 0.33A	0.05 ~ 1A	0.05 ~ 1A	0.02 ~ 0.42A	0.02 ~ 0.42A	0.016 ~ 0.33A	0.016 ~ 0.33A			
	RATED POWER	10W		10.08W		9.9W		10W		10.08W		9.9W				
	CAPACITIVE LOAD (max.)	± 1000uF														
	RIPPLE & NOISE (max.) Note.2	75mVp-p(10% ~ 100% load)														
	VOLTAGE TOLERANCE Note.3	± 4.0%		± 2.5%		± 2.5%		± 3.0%		± 2.5%		± 2.5%				
	LINE REGULATION	± 1.0%														
	LOAD REGULATION	± 3.0%		± 2.0%		± 1.0%		± 2.0%		± 2.0%		± 1.0%				
SETUP TIME	100ms/RATED DC INPUT at full Load															
INPUT	RATED DC INPUT	12VDC						48VDC								
	VOLTAGE RANGE	9.8 ~ 36VDC						22 ~ 72VDC								
	EFFICIENCY (Typ.)	76%			77%			77%			78%			77%		
	DC CURRENT	1.4A/12VDC						0.4A/48VDC								
	SHUTDOWN IDLE CURRENT	20mA/12VDC														
PROTECTION	OVERLOAD	Above 105% rated output power Protection type : Over power limiting, recovers automatically after fault condition is removed														
	OVER VOLTAGE(CLAMP)	5.75 ~ 7.5V	-5.75 ~ -7.5V	13.8 ~ 18V	-13.8 ~ -18V	17.3 ~ 22.5V	-17.3 ~ -22.5V	5.75 ~ 7.5V	-5.75 ~ -7.5V	13.8 ~ 18V	-13.8 ~ -18V	17.3 ~ 22.5V	-17.3 ~ -22.5V			
	SHORT CIRCUIT Note.4	Recovers automatically after fault condition is removed														
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 & EMC (Note 5)	SAFETY STANDARDS	UL60950-1, EAC TP TC 004 approved, Design refer to TUV EN60950-1														
	ISOLATION VOLTAGE	I/P-O/P:1KVDC														
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH														
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EAC TP TC 020														
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; EN55024, light industry level, criteria A, EAC TP TC 020														
OTHERS	MTBF	1878.5K 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	<p>1. All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Short circuit not more than 60 seconds.</p> <p>5. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 230mm*230mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>6. To insure proper operation, a 220uF/100V electrolytic capacitor with ESR &lt;1Ω must be added to the input line.</p> <p>7. EMC filter suggestion:</p> <div style="text-align: center;"> </div> <p>8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p>															

File Name: NSD10-D-SPEC 2018-01-12



Note: all features are subject to change without notice.

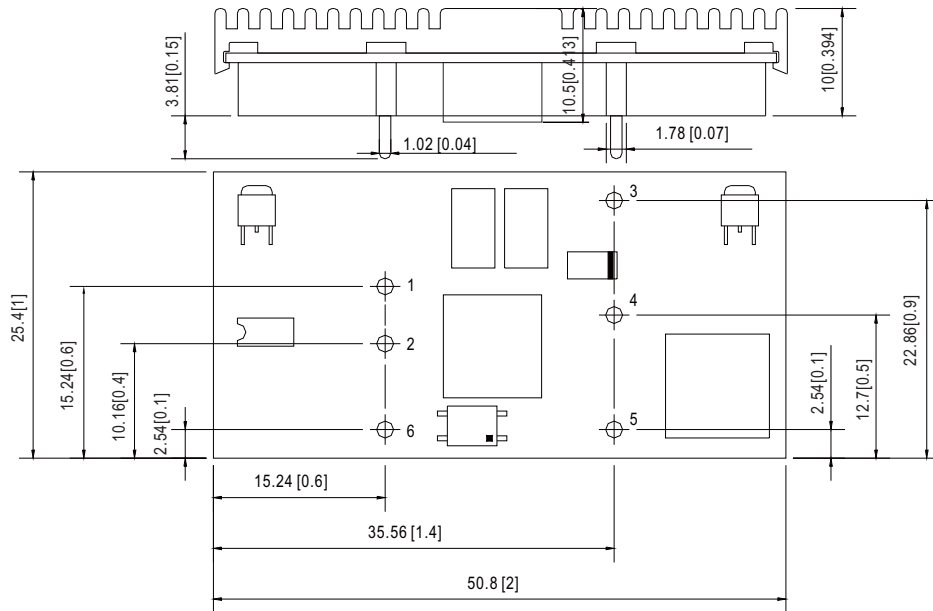


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**Mechanical Specification**

Unit:mm[inch]

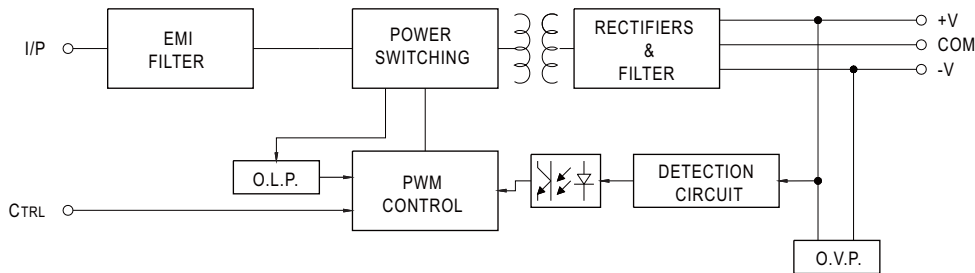


Pin. No Assignment

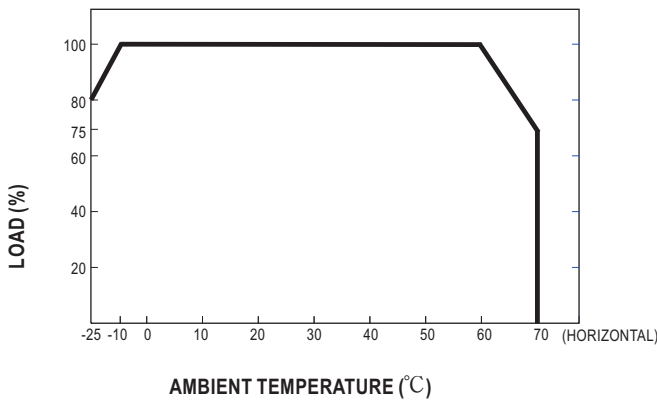
Pin No.	Assignment	Pin No.	Assignment
1	+INPUT	4	COMMON
2	-INPUT(GND)	5	-OUT
3	+OUT	6	CONTROL

**Block Diagram**

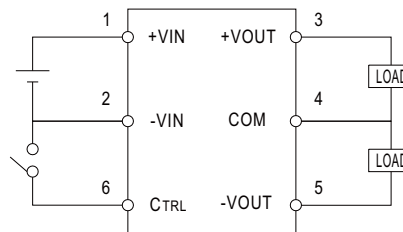
fosc : 350KHz



**Derating Curve**



**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

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