

NSD10-S 10W DC-DC Regulated Single Output

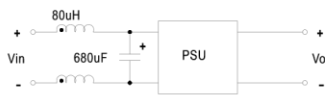
Features:

- 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
- Low cost
- High reliability
- 2 years warranty



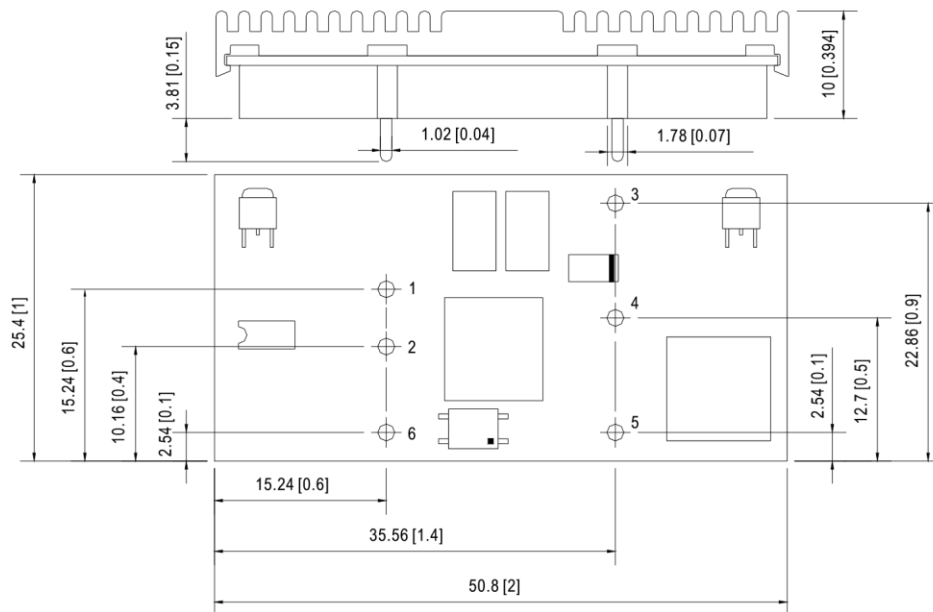
SPECIFICATION

MODEL		NSD10-12S3	NSD10-12S5	NSD10-12S9	NSD10-12S12	NSD10-12S15	NSD10-48S3	NSD10-48S5	NSD10-48S9	NSD10-48S12	NSD10-48S15	
OUTPUT	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	
	RIPPLE & NOISE (max.) Note.2	75mVp-p										
	VOLTAGE TOLERANCE Note.3	+/-2.0% max.										
	LINE REGULATION	+/-1.0%										
	LOAD REGULATION	+/-2.0%	+/-1.0%	+/-1.0%	+/-1.0%	+/-1.0%	+/-2.0%	+/-1.0%	+/-1.0%	+/-1.0%	+/-1.0%	+/-1.0%
INPUT	RATED DC INPUT	12VDC					48VDC					
	VOLTAGE RANGE	9.8 ~ 36VDC					22 ~ 72VDC					
	EFFICIENCY (Typ.)	72%	75%	78%	79%	80%	74%	77%	78%	79%	80%	
	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)	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	
	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 Approved, Design refer to TUV EN60950-1										
	ISOLATION VOLTAGE	I/P-O/P:1.0KVDC										
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms/500VDC 25°C 70%RH										
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B										
OTHERS	EMI IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; EN55024, Light industry level, criteria A										
	MTBF	2138.2K hrs min. MIL-HDBK-217F (25°C)										
	DIMENSION	25.4*50.8*10mm (1**2**0.394") (L*W*H)										
NOTE	PACKING	0.02Kg; 300pcs/7Kg/0.97CUFT										
	NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Short circuit not more than 60 seconds. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For the input line, a 220uF/100V electrolytic capacitor with Esr<1 Ohms is used in the test. EMC filter suggestion: 										



Mechanical Specification

Unit:mm[inch]

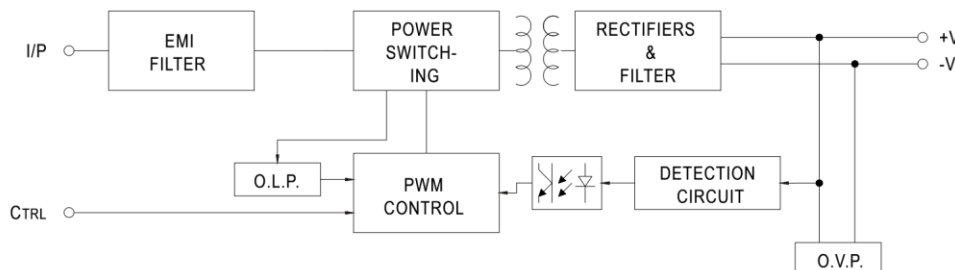


Pin. No Assignment

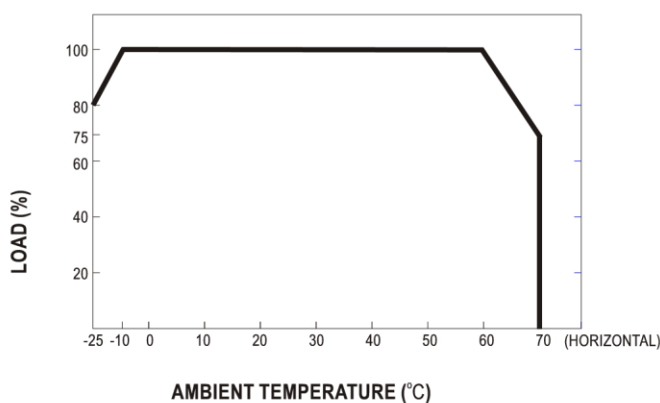
Pin No.	Assignment	Pin No.	Assignment
1	+INPUT	4	N/C
2	-INPUT(GND)	5	-OUT
3	+OUT	6	CONTROL

Block Diagram

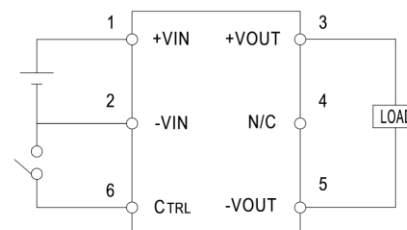
fosc : 350KHz



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

NSD10-D 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
- Low cost
- High reliability
- 2 years warranty



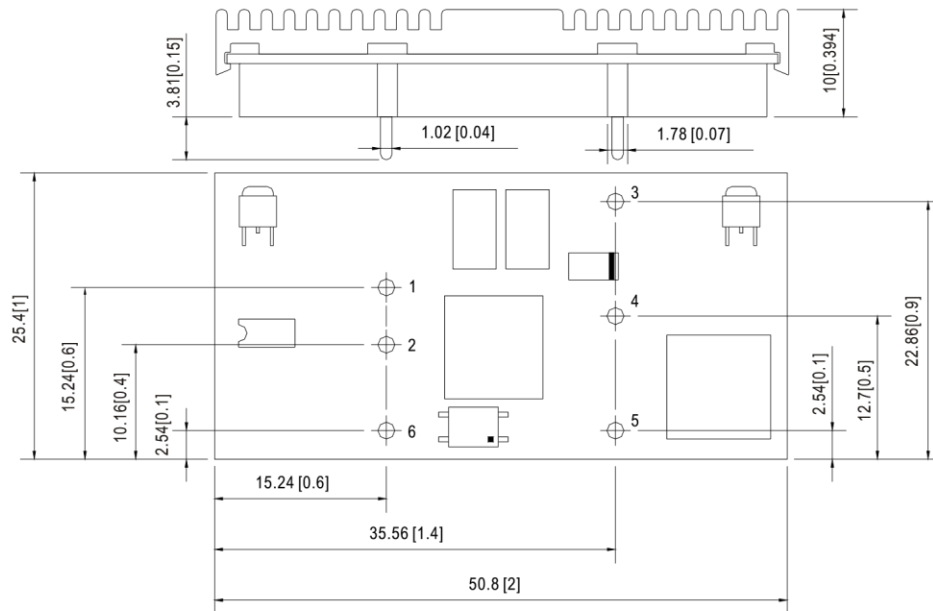
SPECIFICATION

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											
	RIPPLE & NOISE (max.) Note.2	75mVp-p(10% ~ 100% load)											
	VOLTAGE TOLERANCE Note.3	+/-4.0%		+/-2.0%		+/-2.0%		+/-3.0%		+/-2.0%		+/-2.0%	
	LINE REGULATION	+/-1.0%											
	LOAD REGULATION	+/-3.0%		+/-2.0%		+/-1.0%		+/-2.0%		+/-2.0%		+/-1.0%	
INPUT	RATED DC INPUT	12VDC						48VDC					
	VOLTAGE RANGE	9.8 ~ 36VDC						22 ~ 72VDC					
	EFFICIENCY (Typ.)	76%		77%		77%		78%		77%		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 Approved, Design refer to TUV EN60950-1											
	ISOLATION VOLTAGE	I/P-O/P:1.0KVDC											
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms/500VDC 25°C 70%RH											
	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	1878.5K hrs min. MIL-HDBK-217F (25°C)											
	DIMENSION	25.4*50.8*10mm (1**2**0.394") (L*W*H)											
	PACKING	0.02Kg; 300pcs/7Kg/0.97CUFT											
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Short circuit not more than 60 seconds. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For the input line, a 47uF/100V electrolytic capacitor with ESR<1 Ohms is used in the test. EMC filter suggestion: <div style="text-align: center;"> </div> 												

NSD10-D 10W DC-DC Regulated Dual Output

Mechanical Specification

Unit:mm[inch]

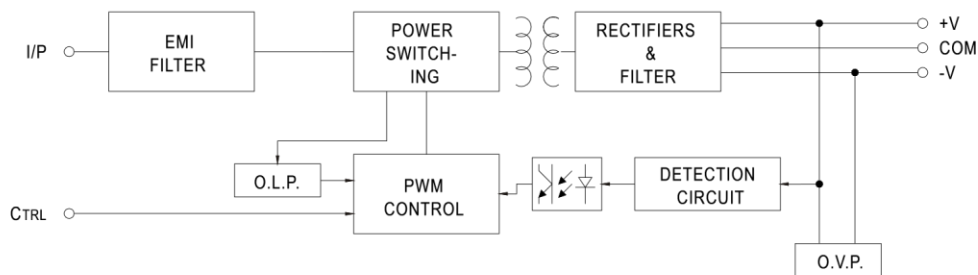


Pin. No Assignment

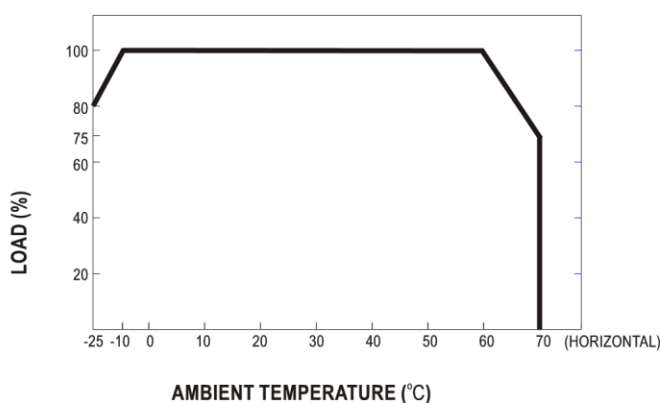
Pin No.	Assignment	Pin No.	Assignment
1	+INPUT	4	COMMON
2	-INPUT(GND)	5	-OUT
3	+OUT	6	CONTROL

Block Diagram

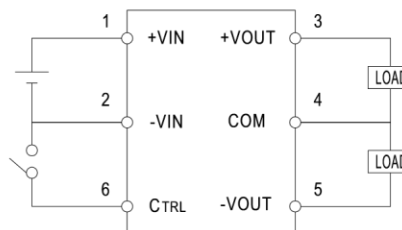
fosc : 350KHz



Derating Curve



ON/OFF Control



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