15W DC-DC Regulated Dual Output

NSD15-D series

■ Features :

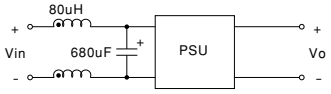
- Wide 4:1 DC input range
- Protections: Short circuit / Overload / Over voltage
- 1500VDC I/O isolation
- Built-in EMI filter
- Cooling by free air convection
- Output voltage trimming function
- Built-in remote ON-OFF control
- 100% full load burn-in test
- Lost cost
- High reliability
- 2 years warranty

SPECIFICATION

MODEL		NSD15-12D5		NSD15-12D12		NSD15-12D15		NSD15-48D5		NSD15-48D12		NSD15-48D15	
OUTPUT	DC VOLTAGE	5V	-5V	12V	-12V	15V	-15V	5V	-5V	12V	-12V	15V	-15V
	RATED CURRENT	1.5A	1.5A	0.62A	0.62A	0.5A	0.5A	1.5A	1.5A	0.62A	0.62A	0.5A	0.5A
	CURRENT RANGE	0.07 ~ 1.5A	0.07 ~ 1.5A	0.03 ~ 0.62A	0.03 ~ 0.62A	0.02 ~ 0.5A	0.02 ~ 0.5A	0.07 ~ 1.5A	0.07 ~ 1.5A	0.03 ~ 0.62A	0.03 ~ 0.62A	0.02 ~ 0.5A	0.02 ~ 0.5A
	RATED POWER	15W		14.88W		15W		15W		14.88W		15W	
	CAPACITIVE LOAD (max.)	±1000uF											
	RIPPLE & NOISE (max.) Note.2	100mVp-p(25% ~ 100% load)											
	VOLTAGE TOLERANCE Note.3	±3.0%		±2.5%		±2.5%		±3.0%		±2.5%		±2.5%	
	LINE REGULATION	±1.0% at 10% ~ 100% load											
	LOAD REGULATION	±2.0%		±1.0%		±1.0%		±2.0%		±1.0%		±1.0%	
	TRIM OUTPUT (Typ.)	±5.0%		±5.0%		±3.0%		±5.0%		±5.0%		±3.0%	
	SETUP TIME	100ms/RATED DC INPUT at full Load											
INPUT	RATED DC INPUT	12VDC						48VDC					
	VOLTAGE RANGE Note.6	9.4 ~ 36VDC						18 ~ 72VDC					
	EFFICIENCY (Typ.)	76%		80%		80%		80%		84%		84%	
	DC CURRENT	1.8A/12VDC						0.4A/48VDC					
	SHUTDOWN IDLE CURRENT	20mA											
PROTECTION	OVERLOAD	Above 105% rated output power											
		Protection type : Over power limiting, recovers automatically after fault condition is removed											
	OVER VOLTAGE(CLAMP)	7.25 ~ 9V	-7.25 ~ -9V	13.8 ~ 18V	-13.8 ~ -18V	17.3 ~ 22.5V	-17.3 ~ -22.5V	7.25 ~ 9V	-7.25 ~ -9V	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" or open circuit : ON Logic "0" or short to PIN2 : OFF											
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃											
	WORKING HUMIDITY	0% ~ 95% RH max.											
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 0 ~ 95% RH											
	TEMP. COEFFICIENT	±0.03%/℃ (0~50℃)											
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL60950-1 approved, Design refer to TUV EN60950-1											
	ISOLATION VOLTAGE	I/P-O/P:1.5KVDC											
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH											
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B											
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; EN55024, light industry level, criteria A											
OTHERS	MTBF	1673.1K hrs min. MIL-HDBK-217F (25℃)											
	DIMENSION	50.8*38.1*9.82mm (2"*1.5"*0.387") (L*W*H)											
	PACKING	0.03Kg; 180pcs/6.4Kg/0.97CUFT											

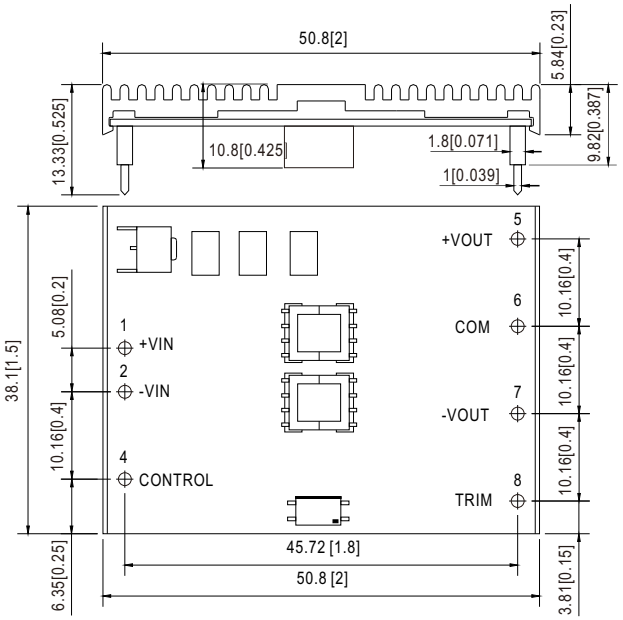
NOTE

1. All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. Short circuit no more than 60 seconds.
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 http://www.meanwell.com)
6. Derating to 80% load is needed for NSD15-48D series at 18Vdc input voltage. Full output wattage can be acquired when the input voltage is higher than 20Vdc.
7. EMC filter suggestion:



■ Mechanical Specification

Unit:mm[inch]

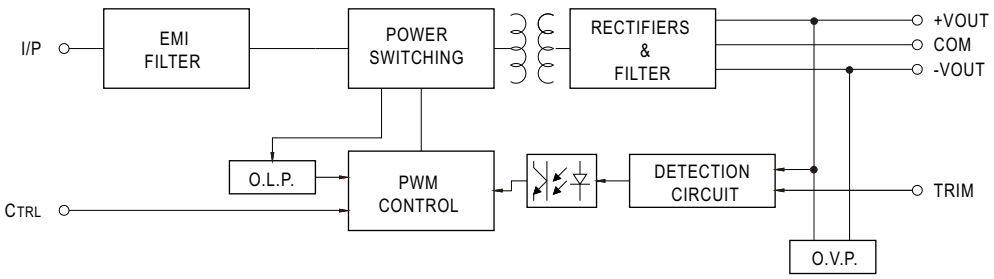


Pin No. Assignment

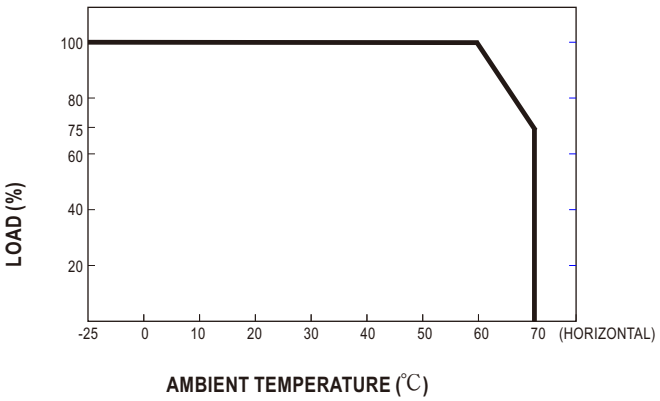
Pin No.	Assignment	Pin No.	Assignment
1	+VIN	5	+VOUT
2	-VIN	6	COMMON
3	No Pin	7	-VOUT
4	CONTROL	8	TRIM

■ Block Diagram

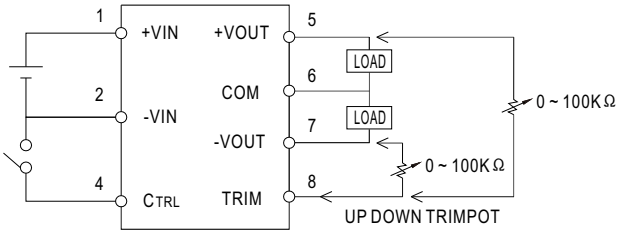
fosc : 400KHz



■ Derating Curve



■ ON/OFF Control & Output Trim



CONTROL INPUT.....PIN4

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