



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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■ 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
- Low cost
- High reliability
- 2 years warranty

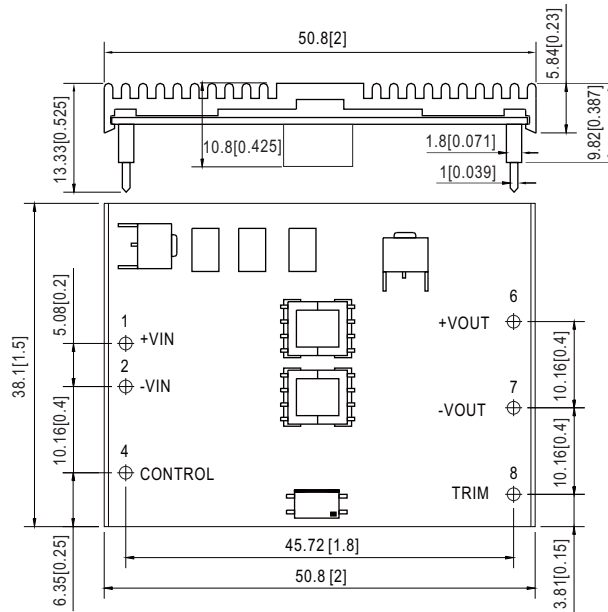


SPECIFICATION

MODEL	NSD15-12S3	NSD15-12S5	NSD15-12S12	NSD15-12S15	NSD15-48S3	NSD15-48S5	NSD15-48S12	NSD15-48S15	
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	3.3V	5V	12V	15V
	RATED CURRENT	3.75A	3A	1.25A	1A	3.75A	3A	1.25A	1A
	CURRENT RANGE	0.18 ~ 3.75A	0.15 ~ 3A	0.06 ~ 1.25A	0.05 ~ 1A	0.18 ~ 3.75A	0.15 ~ 3A	0.06 ~ 1.25A	0.05 ~ 1A
	RATED POWER	12.375W	15W	15W	15W	12.375W	15W	15W	15W
	CAPACITIVE LOAD (max.)	3300uF							
	RIPPLE & NOISE (max.) Note.2	100mVp-p(25% ~ 100% load) for 3.3V only				75mVp-p(25% ~ 100% load)			
	VOLTAGE TOLERANCE Note.3	±2.0%							
	LINE REGULATION	±1.0% at 10% ~ 100% load							
	LOAD REGULATION	±1.0% at 10% ~ 100% load							
	TRIM OUTPUT (Typ.)	+10%	±5.0%	±5.0%	±3.0%	+10%	±5.0%	±5.0%	±3.0%
SETUP TIME	100ms/RATED DC INPUT at full Load								
INPUT	RATED DC INPUT	12VDC				48VDC			
	VOLTAGE RANGE	9.4 ~ 36VDC				18 ~ 72VDC			
	EFFICIENCY (Typ.)	73%	77%	81%	81%	77%	81%	84%	85%
	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)	5.8 ~ 6.93V	5.8 ~ 7.5V	13.8 ~ 18V	17.25 ~ 22.5V	5.61 ~ 6.93V	5.5 ~ 7.5V	13.8 ~ 18V	17.25 ~ 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°C							
	WORKING HUMIDITY	0% ~ 95% RH max.							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 0 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0~50°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:1.5KVDC							
	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	1734K hrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	50.8*38.1*9.82mm (2"*1.5"*0.387") (L*W*H)							
	PACKING	0.03Kg; 180pcs/6.4Kg/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 & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Short circuit no 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 http://www.meanwell.com)</p> <p>6. Derating to 80% load is needed for NSD15-48S series at 18Vdc input voltage. Full output wattage can be acquired when the input voltage is higher than 20Vdc.</p> <p>7. EMC filter suggestion:</p> <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>								

Mechanical Specification

Unit:mm[inch]

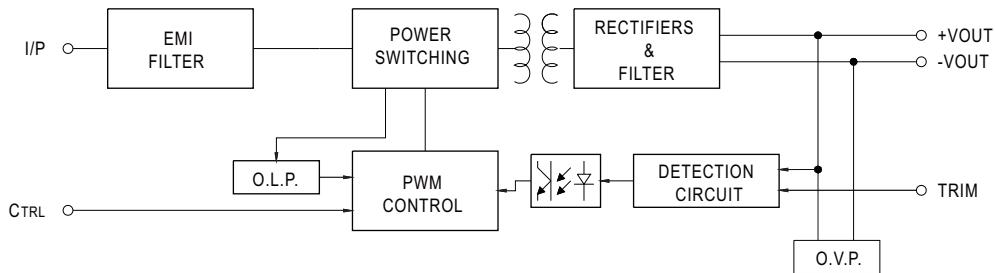


Pin No. Assignment

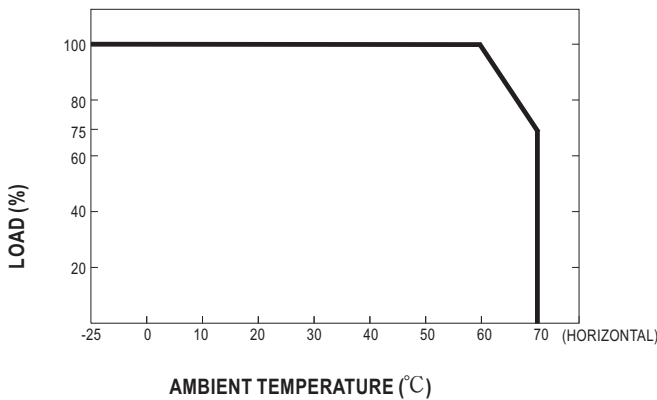
Pin No.	Assignment	Pin No.	Assignment
1	+VIN	6	+VOUT
2	-VIN	7	-VOUT
3,5	No Pin	8	TRIM
4	CONTROL		

Block Diagram

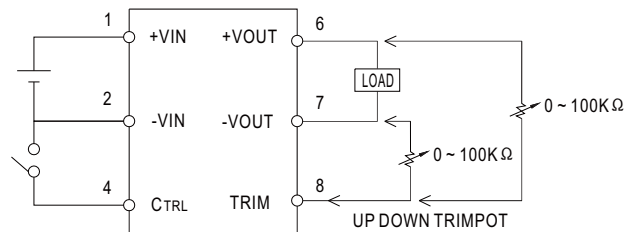
fosc : 400KHz



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