



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
- 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	NSD10-12S3	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
	CAPACITIVE LOAD (max.)	3300uF									
	RIPPLE & NOISE (max.) Note.2	75mVp-p									
	VOLTAGE TOLERANCE Note.3	±2.0% max.									
	LINE REGULATION	±1.0%									
INPUT	LOAD REGULATION	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±2.0%	±1.0%	±1.0%	±1.0%	
	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				
PROTECTION	SHUTDOWN IDLE CURRENT	20mA/12VDC									
	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
FUNCTION	SHORT CIRCUIT Note.4	Recovers automatically after fault condition is removed									
	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:1KVDC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH									
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B									
OTHERS	EMS 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	50.8*25.4*10mm (2**1**0.394") (L*W*H)									
	PACKING	0.02Kg; 300pcs/7Kg/0.97CUFT									
NOTE	1. All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25°C 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 not more than 60 seconds.										
	5. 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.										
	6. To insure proper operation, a 220uF/100V electrolytic capacitor with ESR <1Ω must be added to the input line.										
	7. EMC filter suggestion:										

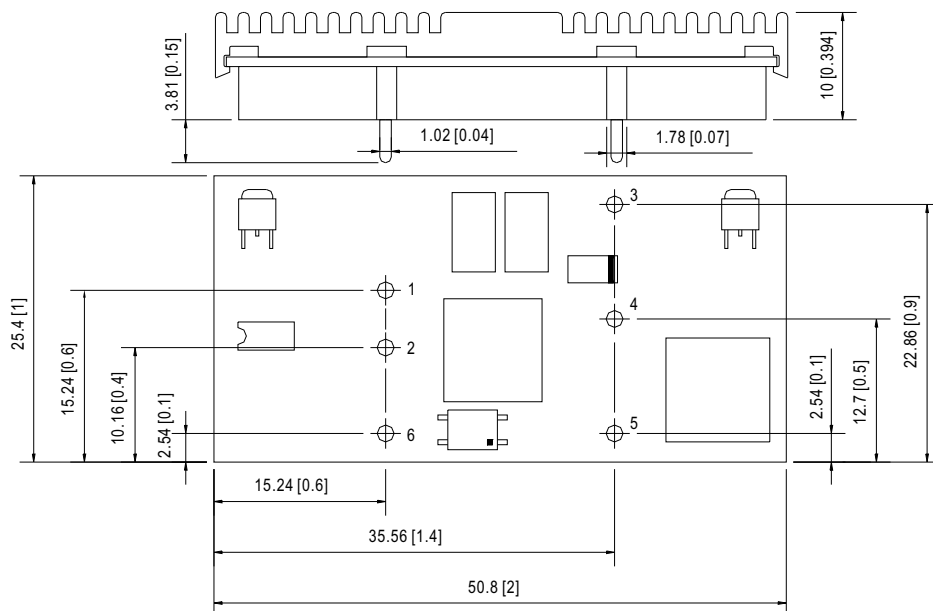


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Mechanical Specification

Unit:mm[inch]

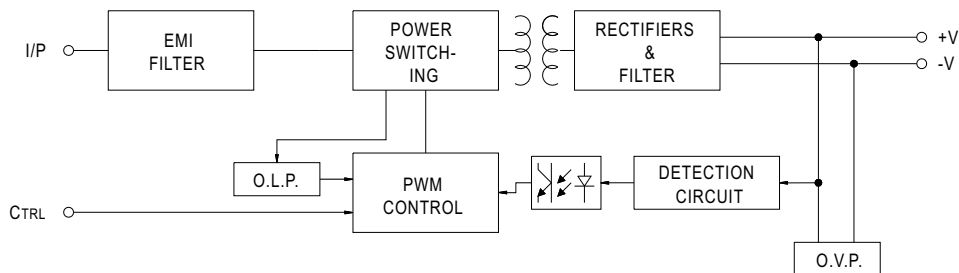


Pin. No Assignment

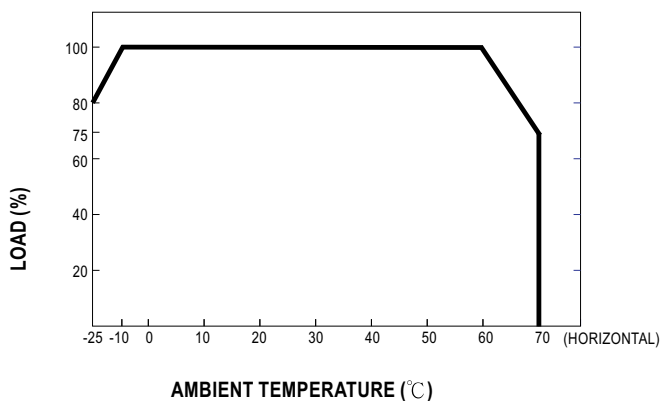
Pin No.	Assignment	Pin No.	Assignment
1	+INPUT	4	N/C
2	-INPUT(GND)	5	-OUT
3	+OUT	6	CONTROL

Block Diagram

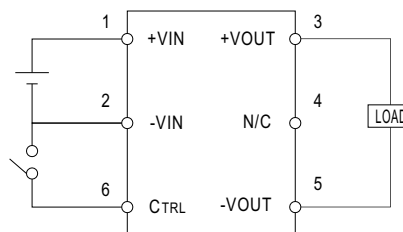
fosc : 350KHz



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