



■ 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

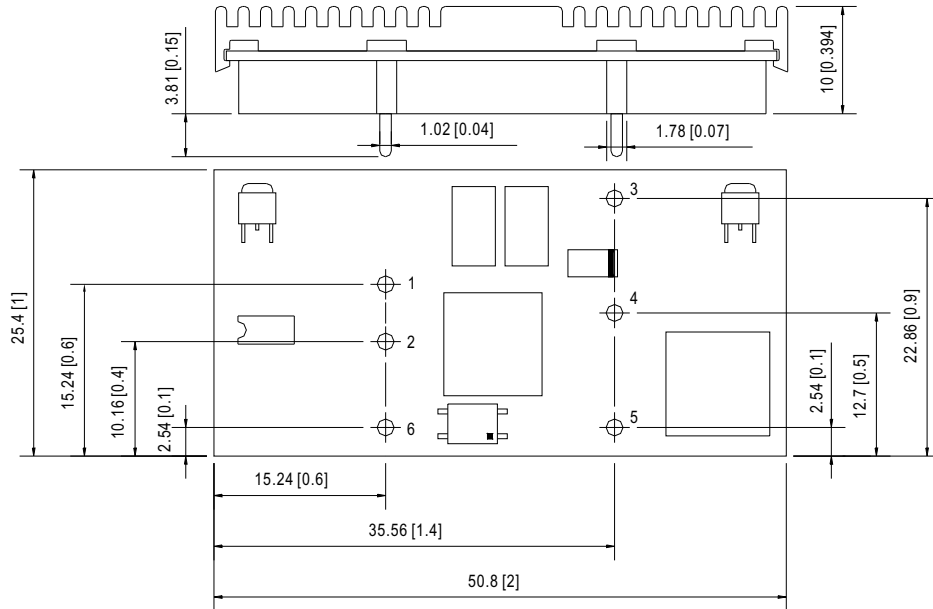


SPECIFICATION

| 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 |
| | CAPACITIVE LOAD (max.) | 3300uF | | | | | | | | | |
| | 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% | |
| 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: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 | <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 not more than 60 seconds.</p> <p>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.</p> <p>6. To insure proper operation, a 220uF/100V electrolytic capacitor with ESR <1Ω must be added to the input line.</p> <p>7. EMC filter suggestion:</p> | | | | | | | | | | |

Mechanical Specification

Unit:mm[inch]

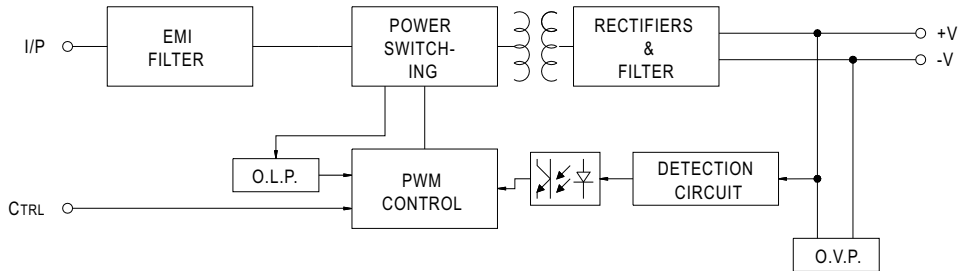


Pin. No Assignment

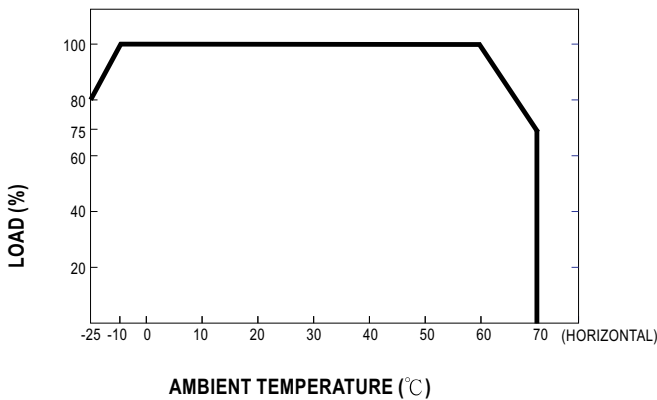
| Pin No. | Assignment | Pin No. | Assignment |
|---------|-------------|---------|------------|
| 1 | +INPUT | 4 | N/C |
| 2 | -INPUT(GND) | 5 | -OUT |
| 3 | +OUT | 6 | CONTROL |

Block Diagram

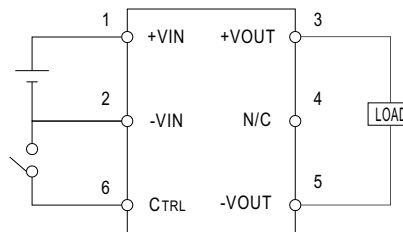
fosc : 350KHz



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