



- Features :
 - Wide 2:1 DC input range
 - In/out capacitance 1000pF
 - Protections: Short circuit / Overload / Over voltage
 - 1000VDC I/O isolation for D/D
 - Cooling by free air convection
 - Built-in remote ON-OFF control
 - 100% full load burn-in test
 - Fixed switching frequency at 225KHz
 - Lost cost
 - High reliability
 - 1 year warranty



SPECIFICATION

| MODEL | SDM30-12S3 | SDM30-24S3 | SDM30-48S3 | SDM30-12S5 | SDM30-24S5 | SDM30-48S5 | |
|-----------------------|---|---|------------|---------------------------|-----------------|------------|-----|
| OUTPUT | DC VOLTAGE | 3.3V | | | 5V | | |
| | RATED CURRENT | 5A | | | 5A | | |
| | CURRENT RANGE | 0 ~ 5A | | | 0 ~ 5A | | |
| | RATED POWER | 16.5W | | | 25W | | |
| | RIPPLE & NOISE (max.) Note.2 | 75mVp-p | | | 75mVp-p | | |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | | | ±2.0% max. | | |
| | LINE REGULATION | ±1.0% | | | ±1.0% | | |
| | LOAD REGULATION | ±1.0% | | | ±1.0% | | |
| TRIM OUTPUT | ±13%(Typ.) output voltage | | | ±10%(Typ.) output voltage | | | |
| INPUT | RATED DC INPUT | 12S: 12VDC | | 24S: 24VDC | 48S: 48VDC | | |
| | VOLTAGE RANGE | 12S: 9.2 ~ 18VDC | | 24S: 18 ~ 36VDC | 48S: 36 ~ 72VDC | | |
| | EFFICIENCY (Typ.) | 77% | 79% | 80% | 77% | 79% | 80% |
| | DC CURRENT | 12S: 3.6A | | 24S: 2A | 48S: 1A | | |
| | IDLE CURRENT | 12S: 35mA | | 24S/48S: 30mA | | | |
| PROTECTION | OVERLOAD | Above 105% rated output power Protection type : Over power limiting, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 3.8 ~ 4.95V | | | 5.75 ~ 7.5V | | |
| | SHORT CIRCUIT | Protection type : Shut off o/p voltage, clamping by zener diode Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | |
| FUNCTION | ON/OFF CONTROL | Logic "1" or open: power on Logic "0" short to Vin-: power off | | | | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +85°C (Refer to output load derating curve) | | | | | |
| | STORAGE TEMP., HUMIDITY | -25 ~ +85°C, 0 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0~50°C) | | | | | |
| SAFETY & EMC (Note 6) | SAFETY STANDARDS | Design refer to LVD | | | | | |
| | ISOLATION VOLTAGE | I/P-O/P: 1KVDC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P: 100M Ohms/500VDC | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | |
| OTHERS | EMS IMMUNITY | Compliance to EN61000-2,3,4,6,8; ENV50204, EN55024, light industry level, criteria A | | | | | |
| | MTBF | 322.4K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 50.8*50.8*16mm (2**2**0.63") (L*W*H) | | | | | |
| | PACKING | 0.1Kg; 150pcs/15.8Kg/0.97CUFT | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 12,24,48VDC 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 second. 5. DC source wires ≥ 5cm, an input external al capacitor 47 ~ 100uF is required. 6. 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. | | | | | | |



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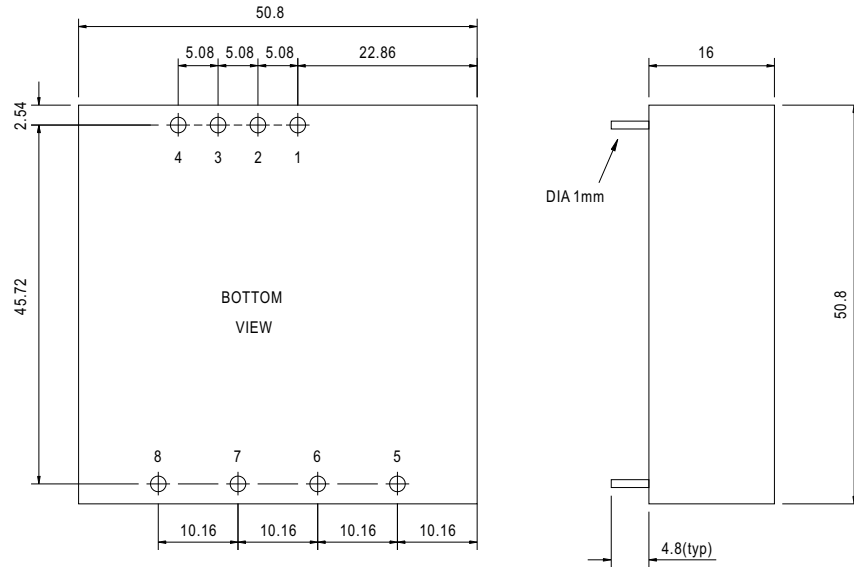


SPECIFICATION

| MODEL | SDM30-12S12 | SDM30-24S12 | SDM30-48S12 | SDM30-12S15 | SDM30-24S15 | SDM30-48S15 | |
|-----------------------|--|---|-------------|---------------|-------------|-------------|-----|
| OUTPUT | DC VOLTAGE | 12V | | 15V | | | |
| | RATED CURRENT | 2.1A | 2.5A | 1.7A | 2A | | |
| | CURRENT RANGE | 0 ~ 2.1A | 0 ~ 2.5A | 0 ~ 1.7A | 0 ~ 2A | | |
| | RATED POWER | 25.2W | 30W | 25.5W | 30W | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | | 100mVp-p | | | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% max. | | ±2.0% max. | | | |
| | LINE REGULATION | ±1.0% | | ±1.0% | | | |
| | LOAD REGULATION | ±1.0% | | ±1.0% | | | |
| TRIM OUTPUT | ±10%(Typ.) output voltage | | | | | | |
| INPUT | RATED DC INPUT | 12S: 12VDC 24S: 24VDC 48S: 48VDC | | | | | |
| | VOLTAGE RANGE | 12S: 9.2 ~ 18VDC 24S: 18 ~ 36VDC 48S: 36 ~ 72VDC | | | | | |
| | EFFICIENCY (Typ.) | 80% | 82% | 84% | 80% | 83% | 85% |
| | DC CURRENT | 12S:3.6A 24S:2A 48S:1A | | | | | |
| | IDLE CURRENT | 12S:35mA 24S/48S:30mA | | | | | |
| PROTECTION | OVERLOAD | Above 105% rated output power Protection type : Over power limiting, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 13.8 ~ 18V | | 17.25 ~ 22.5V | | | |
| | SHORT CIRCUIT | Protection type : Shut off o/p voltage, clamping by zener diode Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | |
| FUNCTION | ON/OFF CONTROL | Logic "1" or open: power on Logic "0" short to Vin-: power off | | | | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +85°C (Refer to output load derating curve) | | | | | |
| | STORAGE TEMP., HUMIDITY | -25 ~ +85°C, 0 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0~50°C) | | | | | |
| | SAFETY STANDARDS | Design refer to LVD | | | | | |
| SAFETY & EMC (Note 6) | ISOLATION VOLTAGE | I/P-O/P:1KVDC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P:100M Ohms/500VDC | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-2,3,4,6,8; ENV50204, EN55024, light industry level, criteria A | | | | | |
| OTHERS | MTBF | 322.4K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 50.8*50.8*16mm (2**2**0.63") (L*W*H) | | | | | |
| | PACKING | 0.1Kg; 150pcs/15.8Kg/0.97CUFT | | | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 12,24,48VDC 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 second.</p> <p>5. DC source wires ≥ 5cm, an input external al capacitor 47 ~ 100uF is required.</p> <p>6. 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> | | | | | | |

Mechanical Specification

Case No. SDM-30 Unit:mm

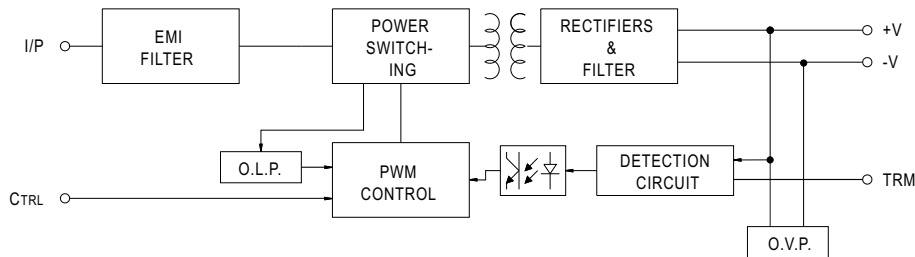


Pin No. Assignment

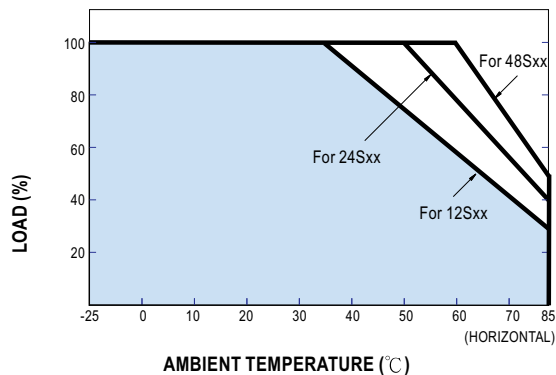
| Pin No. | Assignment | Pin No. | Assignment |
|---------|----------------|---------|------------|
| 1 | +Vin | 6 | +Vout |
| 2 | -Vin | 7 | -Vout |
| 3,5 | No pin | 8 | Trim |
| 4 | Control ON/OFF | | |

Block Diagram

fosc : 225KHz

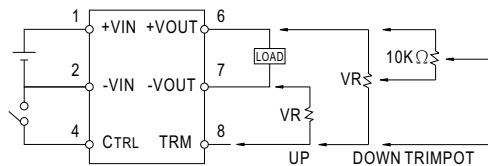


Derating Curve



External Output Trimming

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED(±10%)
A FIXED RESISTOR OR AN EXTERNAL TRIMPOT AS SHOWN



ON/OFF Control Pin

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