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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 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
- Low cost
- High reliability
- 2 years 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   |   |                 |                 |             |            |     |
| 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<br>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 : 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 "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, EAC TP TC 004 approved   |                 |                 |             |            |     |
|                       | ISOLATION VOLTAGE   | I/P-O/P: 1KVDC  |                 |                 |             |            |     |
|                       | 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  |                 |                 |             |            |     |
| OTHERS                | EMC IMMUNITY  | Compliance to EN61000-2,3,4,6,8, EN55024, light industry level, criteria A, EAC TP TC 020                                       |                 |                 |             |            |     |
|                       | 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                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Short circuit not more than 60 second.</li> <li>5. DC source wires ≥5cm, an input external al capacitor 47 ~ 100uF is required.</li> <li>6. 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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>7. 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).</li> </ol> |   |                 |                 |             |            |     |



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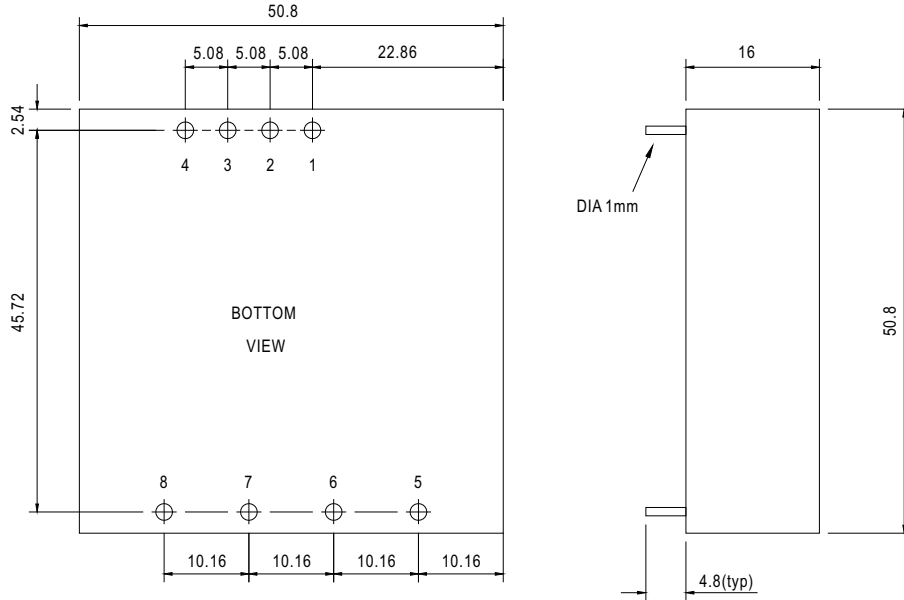


#### SPECIFICATION

| 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           | ±13%(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<br>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 : 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 "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, EAC TP TC 004 approved   |                 |                 |               |             |     |
|                       | ISOLATION VOLTAGE   | I/P-O/P: 1KVDC  |                 |                 |               |             |     |
| EMC (Note 6)          | 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 EN61000-2,3,4,6,8, EN55024, light industry level, criteria A, EAC TP TC 020                                       |                 |                 |               |             |     |
| 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                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Short circuit not more than 60 second.</li> <li>5. DC source wires ≥5cm, an input external al capacitor 47 ~ 100uF is required.</li> <li>6. 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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> <li>7. 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).</li> </ol> |   |                 |                 |               |             |     |

**Mechanical Specification**

Case No. SDM-30 Unit:mm

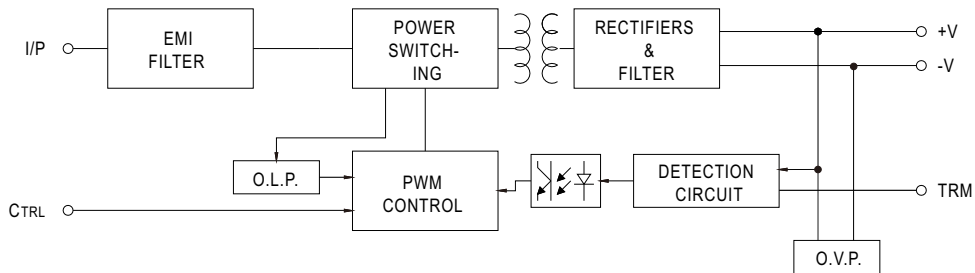


Pin No. Assignment

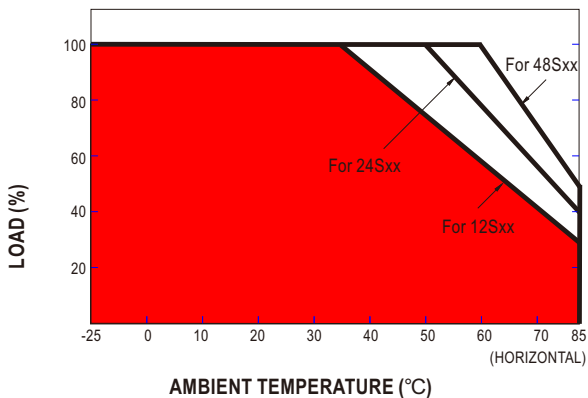
| Pin No. | Assignment     | Pin No. | Assignment |
|---------|----------------|---------|------------|
| 1       | +Vin           | 6       | +Vout      |
| 2       | -Vin           | 7       | -Vout      |
| 3,5     | No pin         | 8       | Trim       |
| 4       | Control ON/OFF |         |  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

**Block Diagram**

fosc : 225KHz

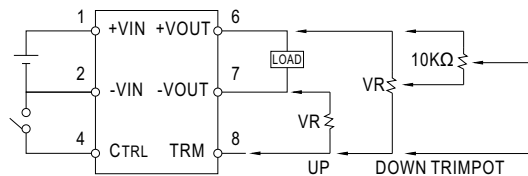


**Derating Curve**



**External Output Trimming**

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED(±13%)  
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