


**■ 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
- 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%		
INPUT	TRIM OUTPUT	±13%(Typ.) output voltage		±10%(Typ.) output voltage		
	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%
	DC CURRENT	12S: 3.6A	24S: 2A	48S: 1A		
PROTECTION	IDLE CURRENT	12S: 35mA	24S/48S: 30mA			
	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		
FUNCTION		Protection type : Shut off o/p voltage, clamping by zener diode				
	SHORT CIRCUIT	Protection type : Constant current limiting, recovers automatically after fault condition is removed				
	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				
	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	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.					


**■ Features :**

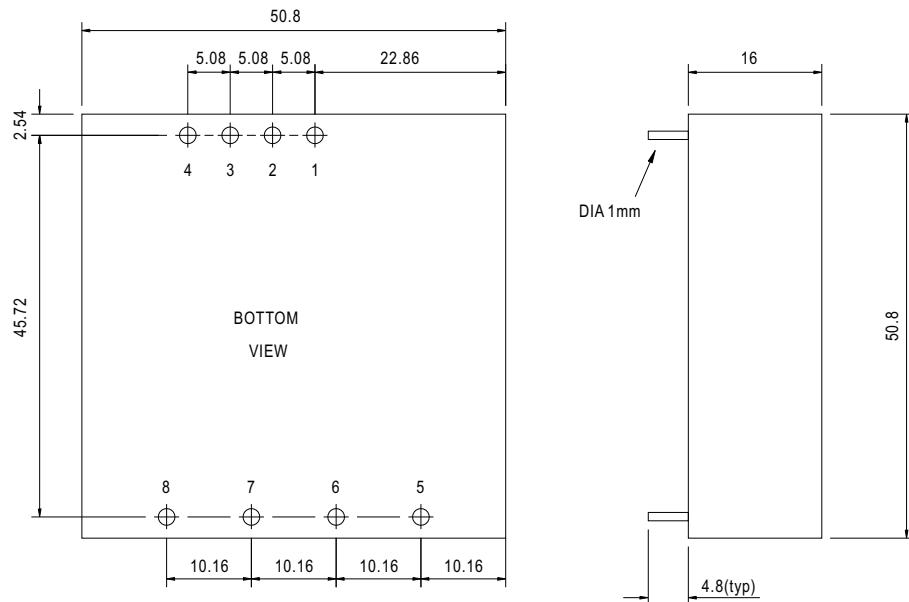
- Wide 2:1 DC input range
- In/out capacitance 1000pF
- Protections: Short circuit / Overload/ Over voltage
- 1000VDC I/O isolation for D/D
- Cooling by free air convection
- Built-in remote ON-OFF control
- 100% full load burn-in test
- Fixed switching frequency at 225KHz
- Low cost
- High reliability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


**SPECIFICATION**

MODEL	SDM30-12S12	SDM30-24S12	SDM30-48S12	SDM30-12S15	SDM30-24S15	SDM30-48S15
OUTPUT	<b>DC VOLTAGE</b>	12V		15V		
	<b>RATED CURRENT</b>	2.1A	2.5A	1.7A	2A	
	<b>CURRENT RANGE</b>	0 ~ 2.1A	0 ~ 2.5A	0 ~ 1.7A	0 ~ 2A	
	<b>RATED POWER</b>	25.2W	30W	25.5W	30W	
	<b>RIPPLE &amp; NOISE (max.) Note.2</b>	100mVp-p		100mVp-p		
	<b>VOLTAGE TOLERANCE Note.3</b>	±2.0% max.		±2.0% max.		
	<b>LINE REGULATION</b>	±1.0%		±1.0%		
	<b>LOAD REGULATION</b>	±1.0%		±1.0%		
INPUT	<b>TRIM OUTPUT</b>	±10%(Typ.) output voltage				
	<b>RATED DC INPUT</b>	12S: 12VDC	24S: 24VDC	48S: 48VDC		
	<b>VOLTAGE RANGE</b>	12S: 9.2 ~ 18VDC	24S: 18 ~ 36VDC	48S: 36 ~ 72VDC		
	<b>EFFICIENCY (Typ.)</b>	80%	82%	84%	80%	83%
	<b>DC CURRENT</b>	12S: 3.6A	24S: 2A	48S: 1A		
PROTECTION	<b>IDLE CURRENT</b>	12S: 35mA	24S/48S: 30mA			
	<b>OVERLOAD</b>	Above 105% rated output power				
		Protection type : Over power limiting, recovers automatically after fault condition is removed				
	<b>OVER VOLTAGE</b>	13.8 ~ 18V		17.25 ~ 22.5V		
FUNCTION		Protection type : Shut off o/p voltage, clamping by zener diode				
	<b>SHORT CIRCUIT</b>	Protection type : Constant current limiting, recovers automatically after fault condition is removed				
	<b>ON/OFF CONTROL</b>	Logic "1" or open: power on	Logic "0" short to Vin-: power off			
ENVIRONMENT	<b>WORKING TEMP.</b>	-25 ~ +85°C (Refer to output load derating curve)				
	<b>STORAGE TEMP., HUMIDITY</b>	-25 ~ +85°C, 0 ~ 95% RH				
	<b>TEMP. COEFFICIENT</b>	±0.03%/°C (0~50°C)				
SAFETY & EMC (Note 6)	<b>SAFETY STANDARDS</b>	Design refer to LVD				
	<b>ISOLATION VOLTAGE</b>	I/P-O/P: 1KVDC				
	<b>ISOLATION RESISTANCE</b>	I/P-O/P: 100M Ohms/500VDC				
	<b>EMI CONDUCTION &amp; RADIATION</b>	Compliance to EN55022 (CISPR22) Class B				
OTHERS	<b>EMS IMMUNITY</b>	Compliance to EN61000-2-3, 4, 6, 8; ENV50204, EN55024, light industry level, criteria A				
	<b>MTBF</b>	322.4K hrs min.	MIL-HDBK-217F (25°C)			
	<b>DIMENSION</b>	50.8*50.8*16mm (2**2**0.63") (L*W*H)				
NOTE	<b>PACKING</b>	0.1Kg: 150pcs/15.8Kg/0.97CUFT				
	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.					

**■ Mechanical Specification**

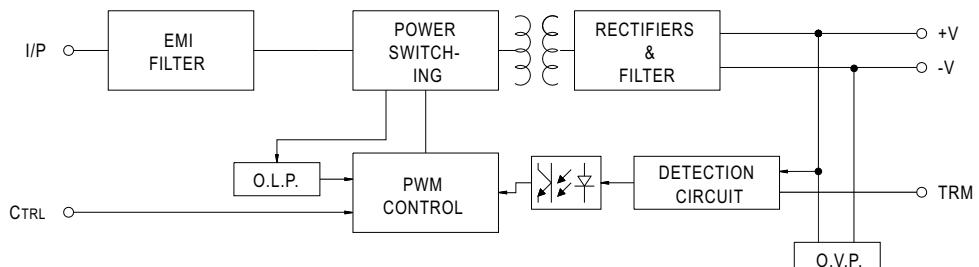
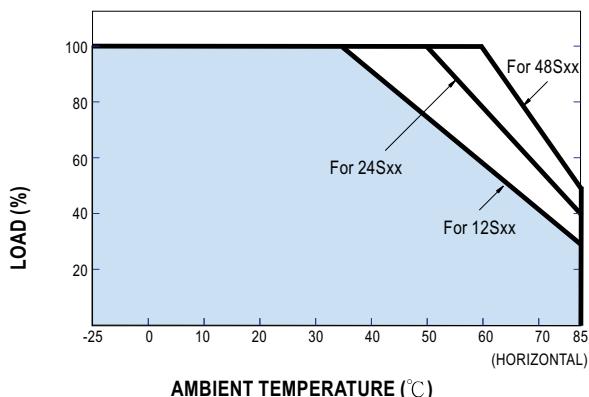
Case No. SDM-30 Unit:mm


**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		

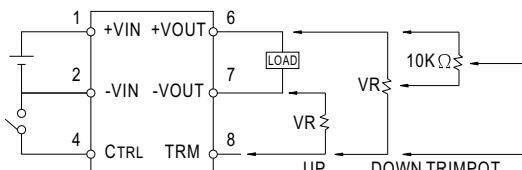
**■ Block Diagram**

fosc : 225KHz


**■ Derating Curve**

**■ External Output Trimming**

OUTPUT MAY OPTIONALY BE EXTERNALLY TRIMMED( $\pm 10\%$ )

A FIXED RESISTER 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