



■ Features :

- Wide 2:1 DC input range
- In/out capacitance 1000pF
- Protections: Short circuit/Over load/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	OVER LOAD	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 : 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.						



30W DC-DC Single Output

SDM30 series



■ Features :

- Wide 2:1 DC input range
- In/out capacitance 1000pF
- Protections: Short circuit/Over load/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

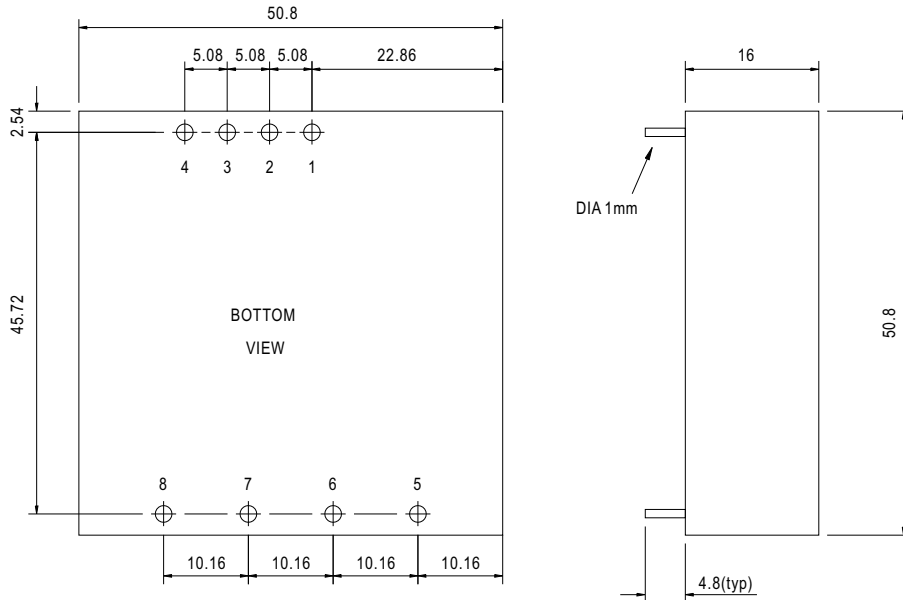


SPECIFICATION

MODEL	SDM30-12S12	SDM30-24S12	SDM30-48S12	SDM30-12S15	SDM30-24S15	SDM30-48S15								
OUTPUT	DC VOLTAGE			12V			15V							
	RATED CURRENT			2.1A			2.5A							
	CURRENT RANGE			0 ~ 2.1A			0 ~ 2.5A							
	RATED POWER			25.2W			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	OVER LOAD						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 : 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	<ol style="list-style-type: none"> 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

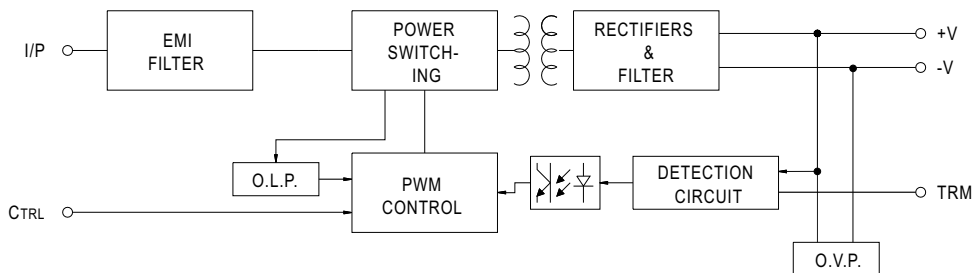


Pin. No Assignment

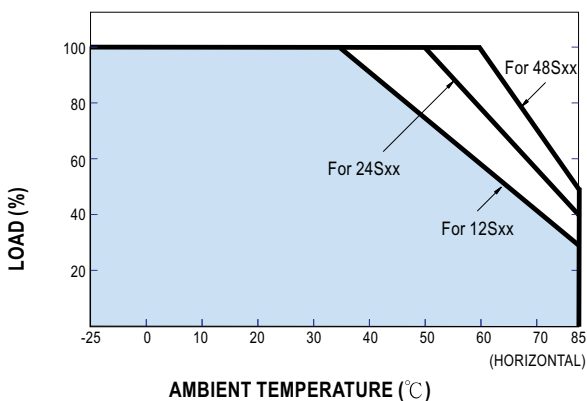
Pin No.	Assignment	Pin No.	Assignment
1	+Vin	6	+Vout
2	-Vin	7	-Vout
3,5	No pin	8	Trim
4	Control ON/OFF		

Block Diagram

fosc : 225KHz

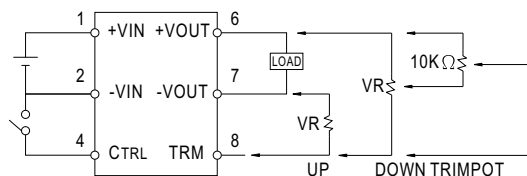


Derating Curve



External Output Trimming

OUTPUT MAY 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