



■ 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 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					
	ISOLATION VOLTAGE	I/P-O/P:1KVDC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
OTHERS	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B					
	EMC IMMUNITY	Compliance to EN61000-2,3,4,6,8, EN55024, light industry level, criteria A					
	MTBF	322.4K hrs min. MIL-HDBK-217F (25°C)					
OTHERS	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>						



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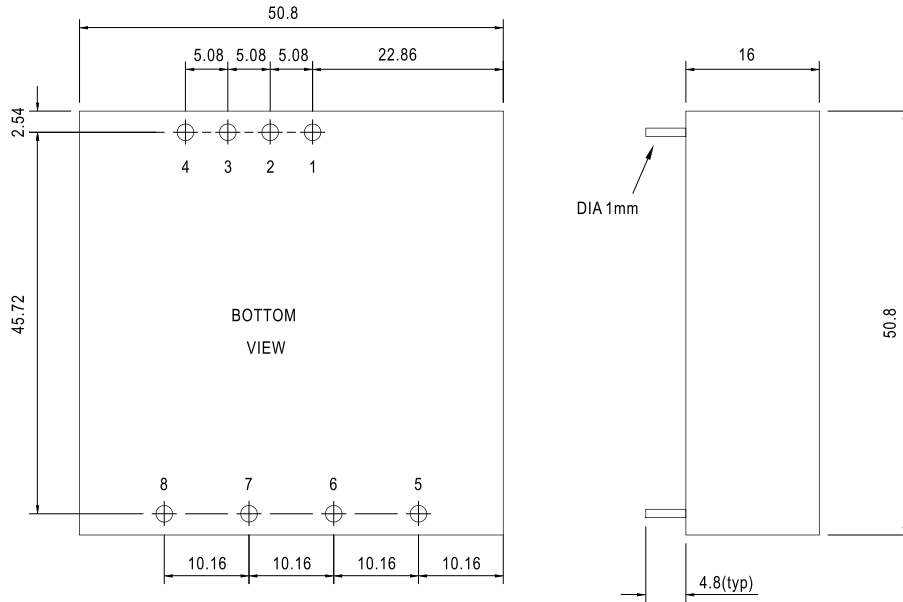


SPECIFICATION

MODEL	SDM30-12S12	SDM30-24S12	SDM30-48S12	SDM30-12S15	SDM30-24S15	SDM30-48S15		
OUTPUT	DC VOLTAGE			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 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					
	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 EN55022 (CISPR22) Class B					
	EMC IMMUNITY		Compliance to EN61000-2,3,4,6,8, 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

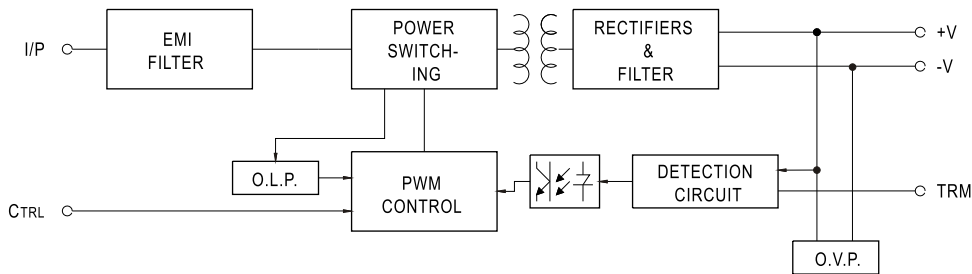


Pin No. Assignment

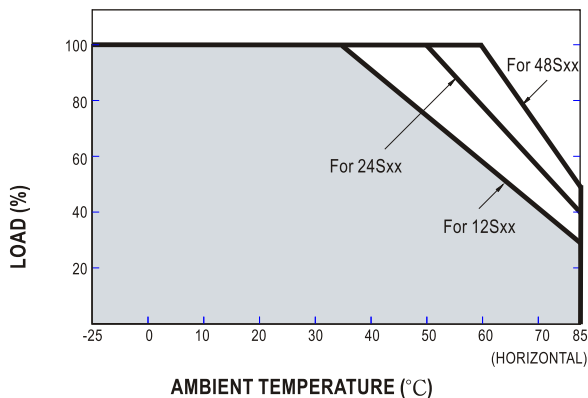
Pin No.	Assignment	Pin No.	Assignment
1	+Vin	6	+Vout
2	-Vin	7	-Vout
3,5	No pin	8	Trim
4	Control ON/OFF		

Block Diagram

fosc : 225KHz

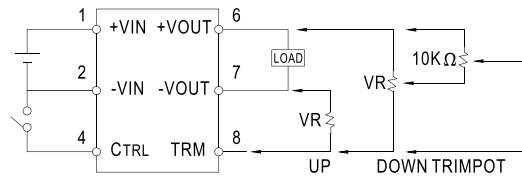


Derating Curve



External Output Trimming

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED ($\pm 13\%$)
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