

Datasheet

50W Single Output DC-DC Converter

SD-50 series



■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VDC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83KHz
- Low cost
- High reliability
- 2 years warranty



SPECIFICATION

MODEL	183843	183663	6783578	183691	6783562	6783574	183685	6783571	183641					
OUTPUT	DC VOLTAGE	5V		12V		24V								
	RATED CURRENT	10A		4.2A		2.1A								
	CURRENT RANGE	0 ~ 10A		0 ~ 4.2A		0 ~ 2.1A								
	RATED POWER	50W		50.4W		50.4W								
	RIPPLE & NOISE (max.) Note.2	100mVp-p		120mVp-p		150mVp-p								
	VOLTAGE ADJ. RANGE	4.5 ~ 5.5VDC		11 ~ 16VDC		23 ~ 30VDC								
	VOLTAGE TOLERANCE Note.3	±2.0%		±1.0%		±1.0%								
	LINE REGULATION	±0.5%		±0.3%		±0.2%								
	LOAD REGULATION	±0.5%		±0.3%		±0.2%								
SETUP, RISE, HOLD UP TIME														
INPUT	VOLTAGE RANGE	A:9.2 ~ 18VDC	B:19 ~ 36VDC	C:36 ~ 72VDC										
	EFFICIENCY (Typ.)	70%	73%	76%	72%	75%	78%	74%	80%					
	DC CURRENT	7A/12V		3A/24V		1.5A/48V								
PROTECTION	OVERLOAD	105 ~ 150% rated output power		Protection type : Hiccup mode, recovers automatically after fault condition is removed										
	OVER VOLTAGE	5.75 ~ 6.75V/10% load		16.8 ~ 20V/10% load		31.5 ~ 37.5V/10% load								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed												
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)												
	WORKING HUMIDITY	20 ~ 90% RH non-condensing												
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH												
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)												
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes												
SAFETY & EMC (Note 4)	SAFETY STANDARDS	Design refer to LVD												
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC												
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH												
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B												
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; ENV50204, EN55024, heavy industry level, criteria A												
OTHERS	MTBF	365.6K hrs min.(SD-50A)	357.5K hrs min.(SD-50B)	368.5K Hrs min.(SD-50C)	MIL-HDBK-217F (25°C)									
	DIMENSION	159*97*38mm (L*W*H)												
	PACKING	0.48Kg; 24pcs/12.7Kg/0.75CUFT												
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. 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.													

