

SD20

MAX. Power 20W Isolated DC-DC Converter

SDS20 Series Small Compact Size DC-DC Converter



Features

- Small Compact Size
- High Efficiency
- Isolated Input - Output
- Wide operating temperature range (-40°C to 85°C)
- Long Life Design (Employ only Ceramic Capacitor)
- Built-in over current protection circuit
- Wide 2 :1 input range
- Adjustable output voltage (single output)
- Safety standard : CB, CE approved
- RoHS compatible design
- 5-years warranty

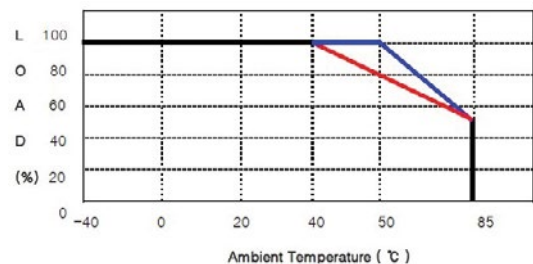
Environment

- Operating Temperature : -40°C ~ 85°C
- Operating Humidity : 5% ~ 95% RH (Non condensing)
- Storage Temperature : -40°C ~ 105°C
- Cooling : Free-Air Convection
- MTBF : 4.5 x 10⁵ hrs

Applications

- Data and telecommunication
- Datacommunication electronic equipments
- FA control

Derating Curve



※ Operating Temperature Range : From -40°C to 85°C

- : SDD20 Series, SDD20 Series
- : SDS20-XX-3R3, SDS20-XX-12, SDS20-XX-15, SDD20 Series
- : SDS20-XX-05 (SDS20-24-05, SDS20-48-05)

General Specifications

Input	Input Voltage Range	24V (18V~36V), 48V (36V~76V)
	Efficiency	86% ~ 90%
Output	Output Voltage	3.3V, 5V, 12V, 15V, ±12V, ±15V
	Line Regulation	± 0.5%
	Load Regulation	± 1.0%
	Cross Regulation (Dual Output)	± 3.0% (minimum load : 10%)
	Output Voltage Accuracy	± 2.0%
	Output Voltage adj. Range	± 10% Range
Protection Circuit	Over Current Protection	Works at over 105% of rating and recovers automatically
	Over Voltage Protection	None
Electrically Isolated	High Pot	Input / Output, Input / Case, Output / Case : AC500V 1minute
	Isolation	Input / Output, Input / Case, Output / Case : DC500V 100MΩ

SDS20 Series Ordering Information (Single Output)

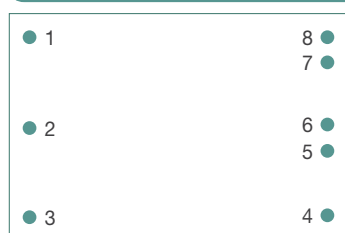
MODEL	SDS20-24-3R3	SDS20-24-05	SDS20-24-12	SDS20-24-15	
Input Voltage (V)	24 (18 ~ 36)				
Output	Vout (V)	3.3	5	12	15
	Iout (A)	4	4	1.7	1.4
Maximum Power (W)	13.2	20	20.4	21	
Ripple & Noise (mVp-p)	70	70	120	150	
Efficiency Typ. (%)	86	88	89	90	

MODEL	SDS20-48-3R3	SDS20-48-05	SDS20-48-12	SDS20-48-15	
Input Voltage (V)	48 (36 ~ 76)				
Output	Vout (V)	3.3	5	12	15
	Iout (A)	4	4	1.7	1.4
Maximum Power (W)	13.2	20	20.4	21	
Ripple & Noise (mVp-p)	70	70	120	150	
Efficiency Typ. (%)	86	87	89	90	

SDD20 Series Ordering Information (Dual Output)

MODEL	SDD20-24-1212	SDD20-24-1515	SDD20-48-1212	SDD20-48-1515	
Input Voltage (V)	24 (18 ~ 36)		48 (36 ~ 76)		
Output	Vout (V)	±12	±15	±12	±15
	Iout (A)	0.85	0.7	0.85	0.7
Maximum Power (W)	20.4	21	20.4	21	
Ripple & Noise (mVp-p)	120 / 120	150 / 150	120 / 120	150 / 150	
Efficiency Typ. (%)	89	89	89	89	

Pin assignments



Pin No.	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	CNT	CNT
4	TRM	-Vout
5	-Vout	No Pin
6	-Vout	COM
7	+Vout	No Pin
8	+Vout	+Vout

Function Pin

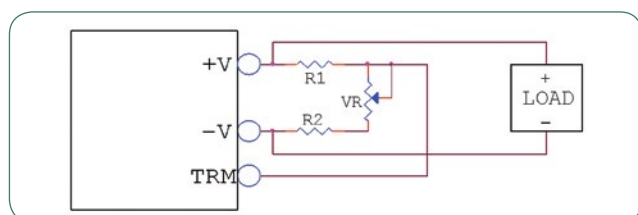
TRM Pin : Output Voltage Trimmable (±10%)

CNT Pin : Remote on/off Control

on : 0~1.2VDC or short -Vin

off : 2.4~5.5VDC or open

Trim Method



External Parts

	Vo	R1	R2	VR
Single	3.3V	1.5kΩ	680Ω	1kΩ
	5V	1kΩ	680Ω	1kΩ
	12V	3.9kΩ	680Ω	1kΩ
	15V	5.6kΩ	750Ω	1kΩ
Dual	±12(24V)	12kΩ	1kΩ	1kΩ
	±15(30V)	15kΩ	1kΩ	1kΩ

Outline Dimensions : <Unit : mm (inch)>

