FEATURES :

- Small Footprint
- 22PIN SMD Package
- High Efficiency up to 80%
- Unregulated Output Types
- High Power Density
- Industry Standard Pinout
- Operating Temperature:-40℃ TO +85℃
- No External Component Required

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Voltage	Output Current	Efficiency
	Vdc	mA	%TYP
13DS1-XXS05N2W	5	400	70
13DS1-XXS09N2W	9	222	75
13DS1-XXS12N2W	12	167	80
13DS1-XXS15N2W	15	133	80
13DS1-XXD05N2W	±5	±200	70
13DS1-XXD09N2W	±9	±111	75
13DS1-XXD12N2W	±12	±84	80
13DS1-XXD15N2W	±15	±67	80

Note:

1."XX" Is Input Voltage:05=5Vdc,09=9Vdc,12=12Vdc, 15=15Vdc.

2.The input voltage increases, there will be an increase in efficiency.

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom			±10	%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Short Term			1	Sec
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	5V&9V (10% To 100% F.L)			15	%
Load Regulation	12V&15V (10% To 100% F.L)			10	%
Ripple & Noise	BW=DC To 20MHz			75	mVp-p
Transient response setting time	50% load step change		350		us

YUAN DEAN SCIENTIFIC

DC-DC Converter

13DS1-2W SERIES

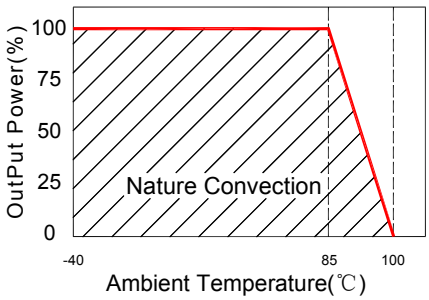
2Watt

3KV Isolated

Single & Dual Output

SMD

Temperature Derating Graph



www.yds.com.tw

TEL：886-6-3842899 FAX：886-6-3843288

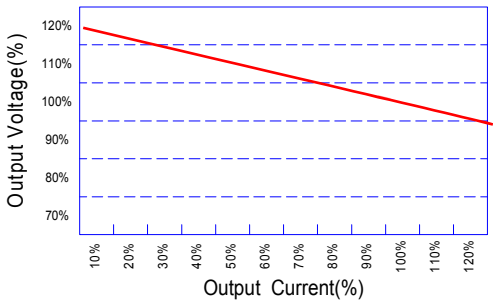
E-MAIL：ydsweb@yds.com.tw

Rev:1 2018/09/25

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		+85	℃
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F @25℃	3500000			Hours
Weight			1.5		g
Dimensions			15.24x8.0x8.5		mm

Tolerance Envelope Graph

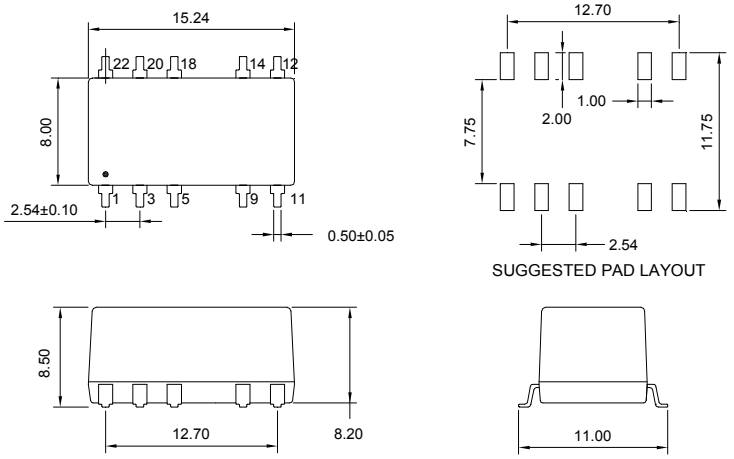


Part Number

13DS1 - 05 S 05 N 2W
A B C D E F

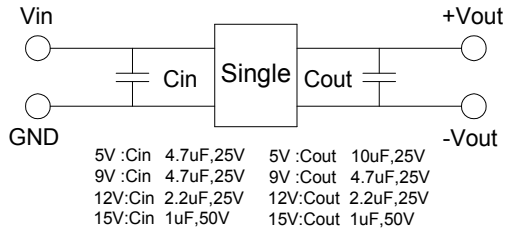
A:Series
B:Input Voltage
C:Single(S) Dual(D)
D:Output Voltage
E:Unregulated(N)
F:Output Power

Markings and dimensions

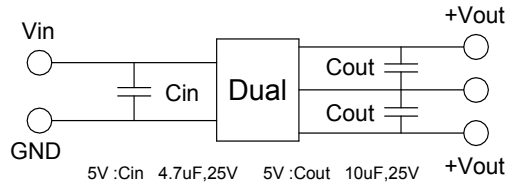


Unit : mm Unless otherwise specified, all tolerances are ±0.25

Recommended Test Circuit



5V :Cin	4.7uF,25V	5V :Cout	10uF,25V
9V :Cin	4.7uF,25V	9V :Cout	4.7uF,25V
12V:Cin	2.2uF,25V	12V:Cout	2.2uF,25V
15V:Cin	1uF,50V	15V:Cout	1uF,50V



5V :Cin	4.7uF,25V	5V :Cout	10uF,25V
9V :Cin	4.7uF,25V	9V :Cout	4.7uF,25V
12V:Cin	2.2uF,25V	12V:Cout	2.2uF,25V
15V:Cin	1uF,50V	15V:Cout	1uF,50V

PIN Connection

PIN	1	3	5	9	11	12	14	18	20	22
Single	-Vin	+Vin	NC	-Vout	NC	NC	+Vout	NC	NC	NC
Dual	-Vin	+Vin	NC	Com	-Vout	NC	+Vout	NC	NC	NC

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