

FEATURES :

- Small Footprint
- 14PIN SMD Package
- High Efficiency up to 80%
- Unregulated Output Types
- High Power Density
- No External Component Required
- Operating Temperature:-40°C TO +85°C
- Industry Standard Pinout

YUAN DEAN SCIENTIFIC



DC-DC Converter

13DS SERIES

1Watt

1KV Isolated

Single Output

SMD

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
13DS-XXS03NNL	3.3	303	65
13DS-XXS05NNL	5	200	70
13DS-XXS09NNL	9	110	75
13DS-XXS12NNL	12	84	78
13DS-XXS15NNL	15	67	80

Note:

- 1."XX" Is Input Voltage:03=3.3Vdc,05=5Vdc,09=9Vdc,12=12Vdc,15=15Vdc.
2. The input voltage increases, there will be an increase in efficiency.

Input Specifications

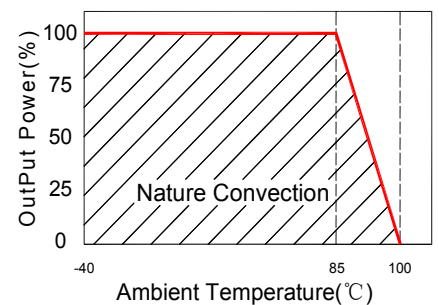
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom			±5	%
Filter	Capacitor				

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	3.3V (10% To 100% F.L)		15		%
Load Regulation	5V,9V (10% To 100% F.L)			15&9.0	%
Load Regulation	12V,15 V (10% To 100% F.L)			7.5&7.0	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting	50% load step change		350		us



Temperature Derating Graph



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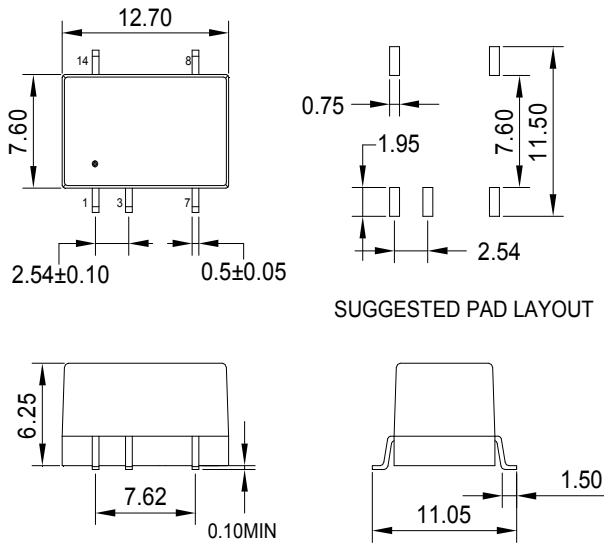
TEL : 886-6-3842899 FAX : 886-6-3843288
E-MAIL : ydsweb@yds.com.tw

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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	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F @25°C	3500000			Hours
Weight			1.2		g
Dimensions			12.70x7.6x6.25		mm

Markings and dimensions

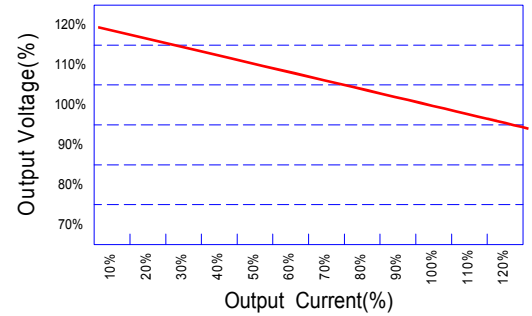


Unit:mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	3	7	8	14
Single	-Vin	+Vin	-Vout	+Vout	NC

Tolerance Envelope Graph



Part Number

13DS - 05 S 05 N NL
 A B C D E F
 A:Series
 B:Input Voltage
 C:Single(S)
 D:Output Voltage
 E:Unregulated(N)
 F:RoHS Version

Recommended Test Circuit

