

FEATURES :

- Small Footprint
- 18PIN SMD Package
- High Efficiency up to 75%
- Unregulated Output Types
- High Power Density
- Industry Standard Pinout
- Operating Temperature:-40°C TO +85°C
- No External Component Required

YUAN DEAN SCIENTIFIC



DC-DC Converter

13DS2-N33KV SERIES

1Watt

3KV Isolated

Single & Dual 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
13DS2-XXS03N33KV	3.3	303	65
13DS2-XXS05N33KV	5	200	70
13DS2-XXS09N33KV	9	111	75
13DS2-XXD03N33KV	±3.3	±151	65
13DS2-XXD05N33KV	±5	±100	70
13DS2-XXD09N33KV	±9	±56	75

Note:

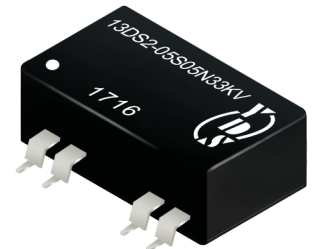
- 1."XX" Is Input Voltage:03=3.3,05=5Vdc,09=9Vdc
- 2.The input voltage increases, there will be an increase in efficiency.

Input Specifications

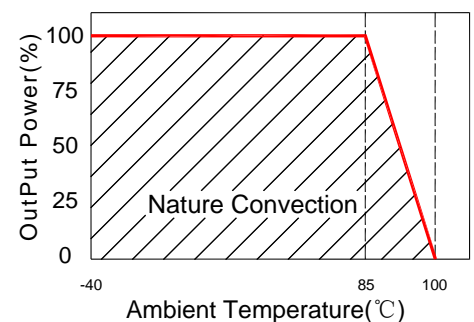
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom			±10	%
Filter	Capacitor				

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	10% To 100% F.L			15	%
Ripple & Noise	BW=DC To 20MHz			75	mVp-p
Transient response setting time	50% load step change		350		us



Temperature Derating Graph



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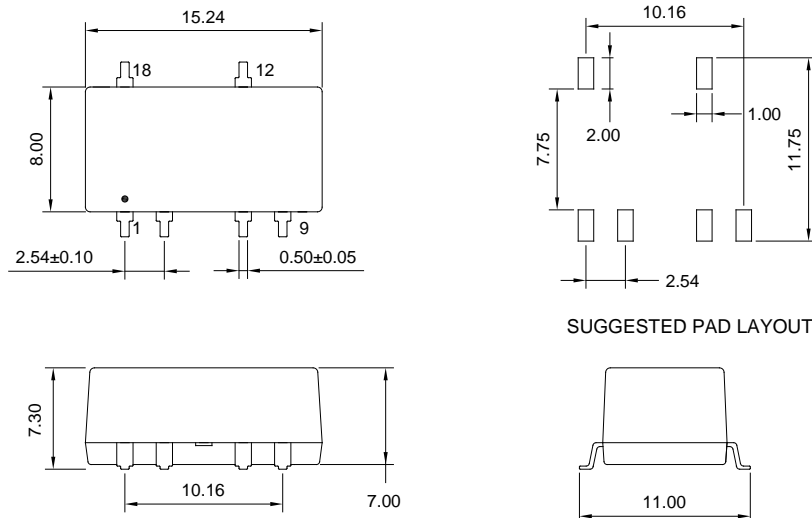
TEL : 886-6-3842899 FAX : 886-6-3843288
E-MAIL : ydsweb@yds.com.tw

Rev:o 2017/5/12

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			1.36		g
Dimensions		15.24x8.0x7.3			mm

Markings and dimensions

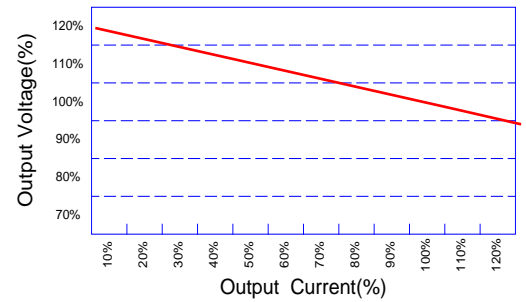


Unit : mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	3	7	9	12	18
Single	-Vin	+Vin	-Vout	-Vout	+Vout	NC
Dual	-Vin	+Vin	Com	-Vout	+Vout	NC

Tolerance Envelope Graph



Part Number

13DS2 - 05 S 05 N 3 3KV
A B C D E F G

- A:Series
- B:Input Voltage
- C:Single Output
- D:Output Voltage
- E:Unregulated(N)
- F:Package
- G:Isolation Voltage

Recommended Test Circuit

