



6000Vdc Isolation Single 1W/2W Watt Dc-Dc Converter



FEATURES:

- 24PIN DIP Package
- High Efficiency up to 85%
- Unregulated Output Types
- Internal SMD Construction
- No External Component Required
- Industry Standard Pinout
- Operating Temperature: -40°C To +85°C



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
18D-XXS05NNL	5	200	70
18D-XXS09NNL	9	111	75
18D-XXS12NNL	12	84	78
18D-XXS15NNL	15	67	80
18D-XXS24NNL	24	42	82
18D-XXS05N2WNL	5	400	70
18D-XXS09N2WNL	9	222	75
18D-XXS12N2WNL	12	167	80
18D-XXS15N2WNL	15	133	80
18D-XXS24N2WNL	24	84	85

Note: 1."XX" Is Input Voltage: 05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc.

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			1Sec	
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Line Regulation	For 1% of Vin		1.2		%
Load Regulation	5V (20% To 100% F.L)			15	%
Load Regulation	9V,12V,15V,24V (20% To 100% F.L)			10	%
Transient response setting time	50% load step change		350		us

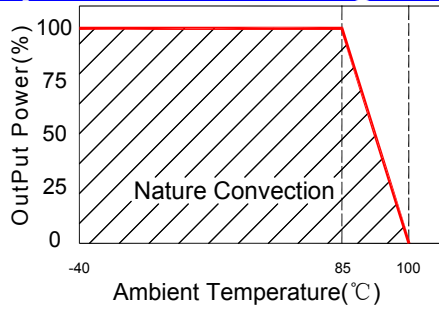
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load,nominal input		50		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			9.5		g
Dimensions			33.02x14.73x10.41		mm

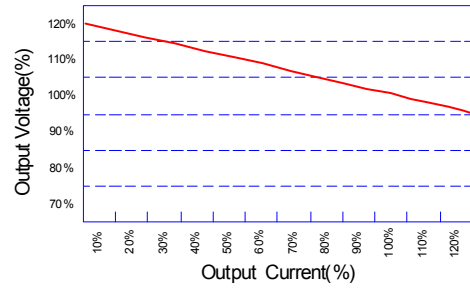


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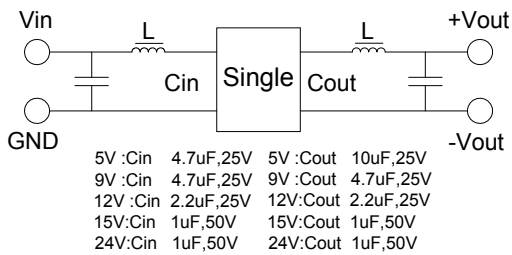
Temperature Derating Graph



Tolerance Envelope Graph



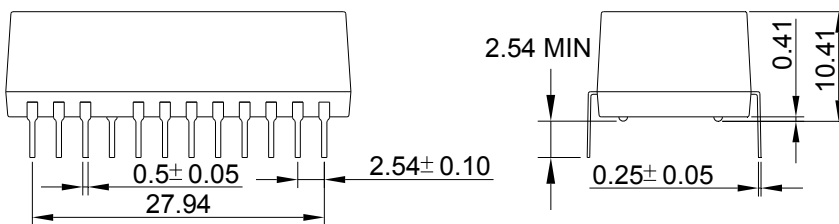
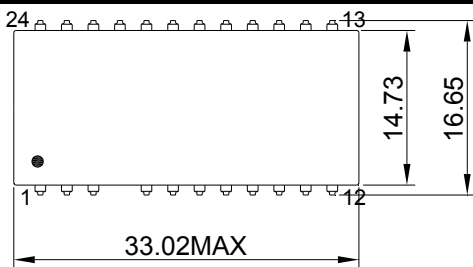
Recommended Test Circuit



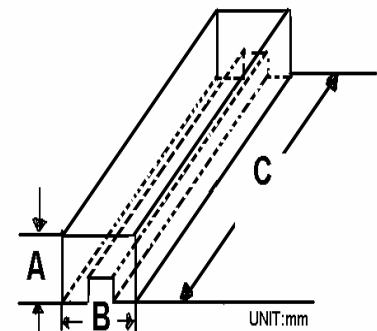
Part Number

18D - 05 S 05 N 2W NL
 A B C D E F G
 A:Series
 B:Input Voltage
 C:Single(S)
 D:Output Voltage
 E:Unregulated(N)
 F:Output Power
 G:RoHS Version

Markings and dimensions



Packaging



Size(mm)		
A	B	C
13.23	12.30	530

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

PIN Connection

PIN	1	2	10,15	12,13	Other
Single	+Vin	-Vin	-Vout	+Vout	NC



6000Vdc Isolation Dual 1W/2W Watt Dc-Dc Converter



FEATURES:

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- Operating Temperature: -40°C To +85°C



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
18D-XXD05NNL	± 5	± 100	70
18D-XXD09NNL	± 9	± 56	75
18D-XXD12NNL	± 12	± 42	78
18D-XXD15NNL	± 15	± 34	80
18D-XXD24NNL	± 24	± 21	82
18D-XXD05N2WNL	± 5	± 200	70
18D-XXD09N2WNL	± 9	± 111	75
18D-XXD12N2WNL	± 12	± 84	80
18D-XXD15N2WNL	± 15	± 67	80
18D-XXD24N2WNL	± 24	± 42	85

Note: 1. "XX" Is Input Voltage: 05=5Vdc, 09=9Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc.
 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

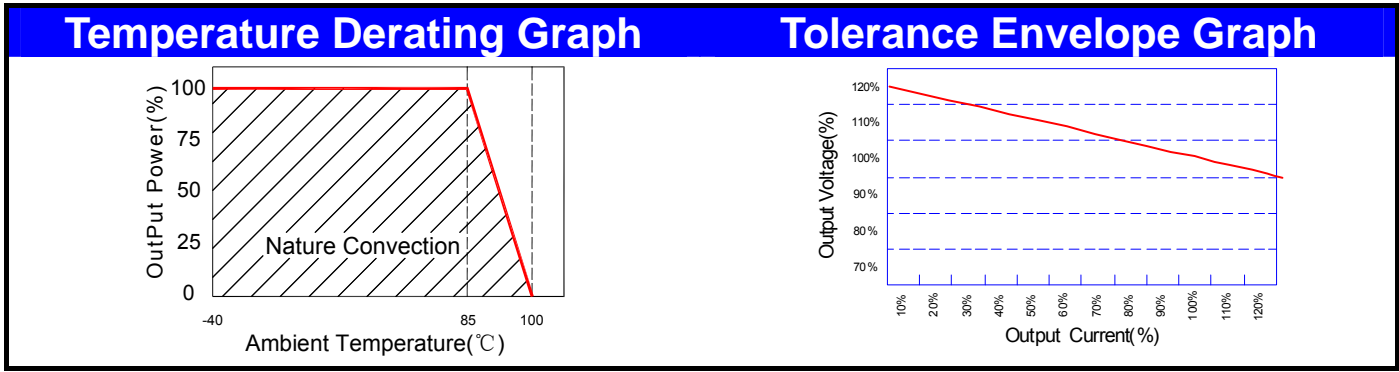
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			± 5	%
Short Circuit Protection	Short Term			1Sec	
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
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General Specifications

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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			9.5		g
Dimensions		33.02x14.73x10.41			mm



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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
 24V :Cin 1uF,50V 24V :Cout 1uF,50V

Part Number

18D - 05 D 05 N 2W NL

A B C D E F G

A:Series
 B:Input Voltage
 C:Dual(D)
 D:Output Voltage
 E:Unregulated(N)
 F:Output Power
 G:RoHS Version

Markings and dimensions

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

Packaging

Size(mm)		
A	B	C
13.23	12.30	530

PIN Connection

PIN	1	2	8,17	10,15	12,13	Other
DUAL	+Vin	-Vin	-Vout	Com	+Vout	NC