

MMT

A decorative blue wavy graphic that flows across the top of the page, starting from the left and curving towards the right.

DC/DC CONVERTER

A green leafy branch with several leaves and water droplets, positioned on the left side of the page.

1&2 Watt

A decorative green wavy graphic that flows across the bottom of the page, starting from the left and curving towards the right.

2019

<http://www.mmtmachrone.com>

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			1	Sec
Line Regulation	For 1.0% 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	%
Ripple & Noise	BW=DC To 20MHz			100	mVp-p
Transient response setting time	50% load step change		350		us

DC-DC Converter

18D-Single SERIES

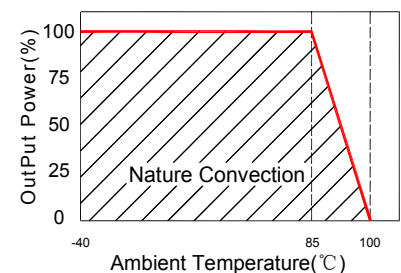
1Watt/2Watt

6KV Isolated

DIP24



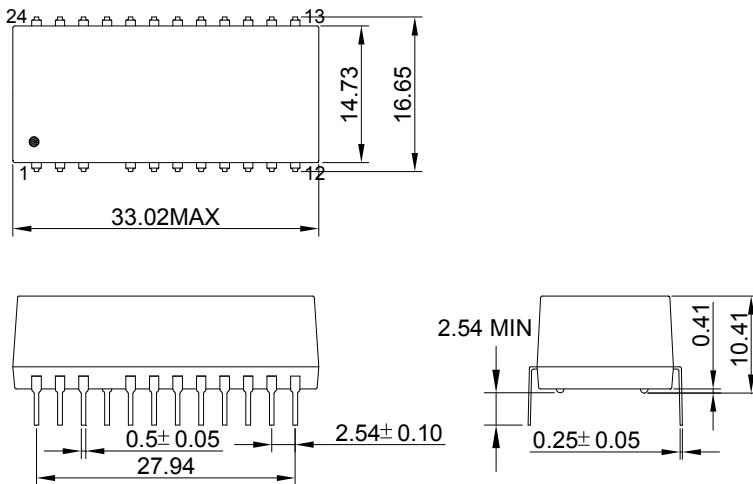
Temperature Derating Graph



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

Markings and dimensions

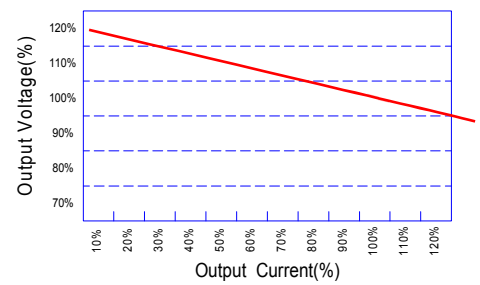


Unit : mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

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

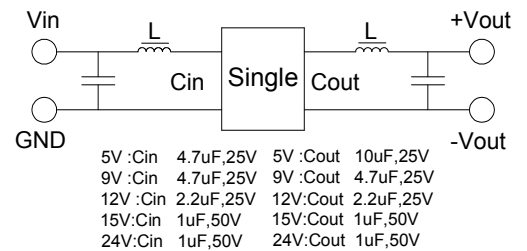
Tolerance Envelope Graph



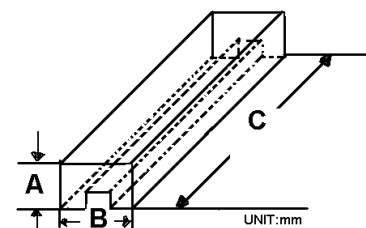
Part Number

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

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
13.23	12.30	530

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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

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

DC-DC Converter

18D-Dual SERIES

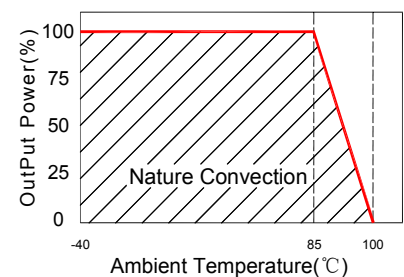
1Watt/2Watt

6KV Isolated

DIP24



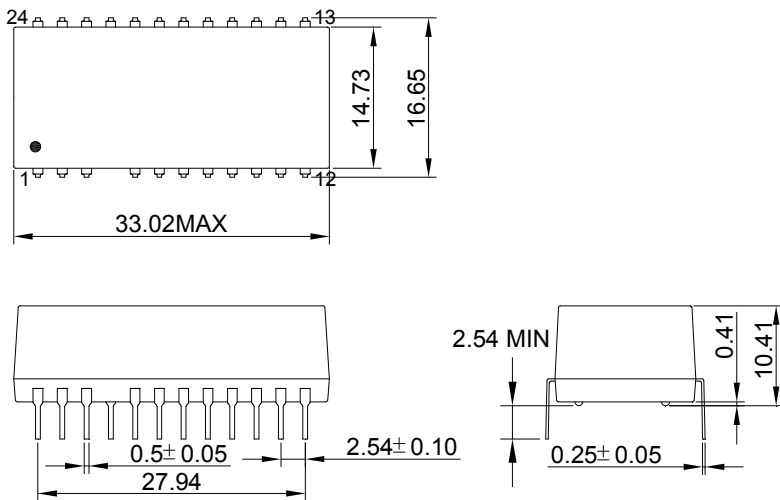
Temperature Derating Graph



General Specifications

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Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input		50		KHz
Operating Temperature		-40		+85	°C
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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

Markings and dimensions

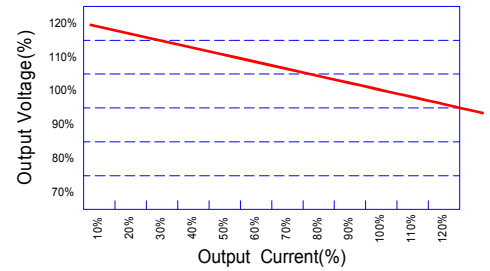


Unit : mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

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

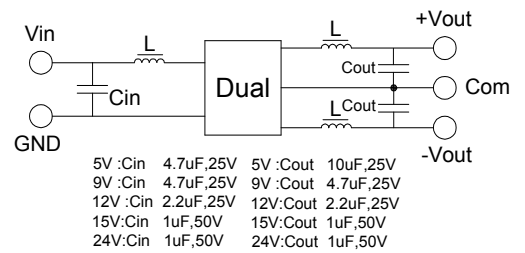
Tolerance Envelope Graph



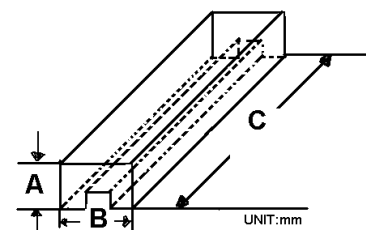
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