

FEATURES

- ◆ 1.5 WATTS REGULATED OUTPUT POWER
- ◆ LOW OUTPUT RIPPLE & NOISE
- ◆ PI TYPE INPUT FILTER
- ◆ 3000VDC ISOLATION VOLTAGE
- ◆ HIGH EFFICIENCY UP TO 78%
- ◆ STANDARD 24 PIN DIP PACKAGE
- ◆ Input π -Filter
- ◆ 50 mV Ripple&Noise

MODEL SELECTION

MF^①05^②12^③-X^④D^⑤-1W5(125)^⑥

- ① Product Series
- ② Input Voltage
- ③ Output Voltage
- ④ Fixed Input
- ⑤ DIP24 Package Style
- ⑥ Rated Power(Output current)

APPLICATIONS

The DC-DC converter MF-XD-1W5 supplies 1.5 watts max. 25 different input/output configurations are available with an isolation voltage of 3000V_{DC}. Special features are low ripple&noise and wide temperature range.



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Technical Data Input

Parameter	Conditions	Data
U _{in}	DC Input Voltage	4.5~5.5V 10.8~13.2V 21.6~26.4V 25.2~30.8V 43.2~52.8V
f _{sw}	Switching Frequency	20KHZ typ
η	Efficiency	50%
	Input Filter	π -Filter

Technical Data Output

Parameter	Conditions	Data
U _{out}	Output Voltages	See table
ΔU_{out}	Output Voltages Accuracy	$\pm 4\%$ max
$\Delta U_{NF}/\Delta U_{HF}$	Ripple&Noise	20 MHz BW 50mV _{pp} max
	Line Regulation	U _{in} =min/max. I _{out} =max $\pm 0.3\%$
	Load Regulation	I _{out} =25~100% $\pm 0.5\%$
P _{over}	Short Circuit Protection	Short-term
ϵ	Temperature Coefficient	T _A = -25~+71°C $\pm 0.02\%/^{\circ}\text{C}$
	Plastic Case	>71~95°C linear to 0% I _{out}
	Metal Case	>71~100°C linear to 0% I _{out}

Technical Data

Parameter	Conditions	Data
U _{isol} p/s	Isolation(prim./sec.)	3.0 KVDC
R _{isol}	Isolation Resistance	10 ⁹ Ω
C _k	Isolation Capacity	30pF
T _o	Operating Temperature	-25~+71°C
	Case Temperature	
	Plastic	95°C max
	Metal	100°C max
	Case	U _{isol} =3KVDC, DIP 24 Black plastic non-conductive

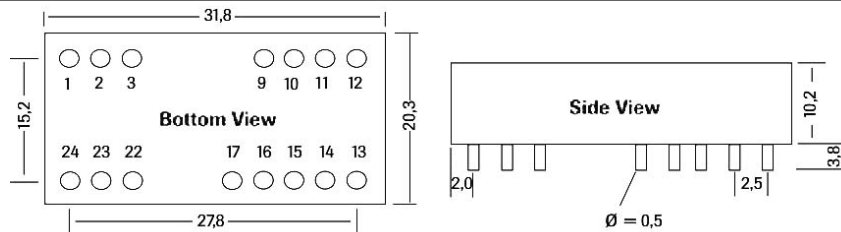
Technical Data

Parameter	Conditions	Data
Cooling		Natural convection
Dimensions	DIP 24	31.8X20.3X10.2 mm
Weight		12,5g

1. All data measured at nominal input voltage, full load ambient temperature of 20 °C (unless otherwise specified).
2. Technical data subject to change.

Type	Input	Input Current		Output	Output	
		code	V			NL mA
MF0505XD-1W5	5		100	620	5	300
MF0512XD-1W5	5		110	550	12	125
MF0515XD-1W5	5		110	550	15	100
MF1205XD-1W5	12		40	260	5	300
MF1212XD-1W5	12		40	215	12	125
MF1215XD-1W5	12		40	215	15	100
MF2405XD-1W5	24		20	130	5	300
MF2412XD-1W5	24		20	115	12	125
MF2415XD-1W5	24		20	115	15	100
MF2805XD-1W5	28		20	110	5	300
MF2812XD-1W5	28		20	100	12	125
MF2815XD-1W5	28		20	100	15	100
MF4805XD-1W5	48		15	65	5	300
MF4812XD-1W5	48		15	60	12	125
MF4815XD-1W5	48		15	60	15	100

DIP24 Case



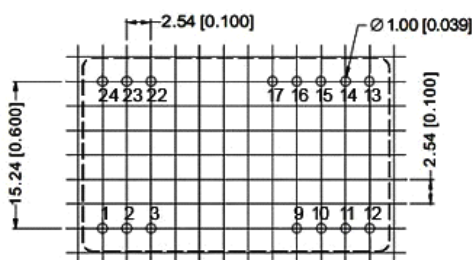
Note:
 Unit:mm[inch]
 Pin diameter tolerances: $\pm 0.10\text{mm}[\pm 0.004\text{inch}]$
 General tolerances: $\pm 0.25\text{mm}[\pm 0.010\text{inch}]$

Dimensions and Pinning

PIN	Dual
1	+Vin
2	+Vin
3	+Vin
4	No Pin
5	No Pin
9	No Pin
10	No Pin
11	No Pin
12	-Vout
13	+Vout

PIN	Dual
14	No Pin
15	No Pin
16	No Pin
17	+Test Point
20	No Pin
21	No Pin
22	-Vin
23	-Vin
24	-Vin

RECOMMENDED FOOTPRINT



TUBE OUTLINE DIMENSIONS

