

**FEATURES :**

- 24PIN DIL Package
- Low Ripple & Noise
- High Efficiency up to 85%
- Unregulated & Regulated Output Types
- Internal SMD Construction
- No External Component Required
- Operating Temperature:-40°C to +85°C
- Industry Standard Pinout

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
52D-XXS05RNL	5	360	58
52D-XXS05NNL	5	360	70
52D-XXD05NNL	±5	±180	70
52D-XXS09RNL	9	200	60
52D-XXS09NNL	9	200	70
52D-XXD09NNL	±9	±100	70
52D-XXS12RNL	12	150	60
52D-XXS12NNL	12	150	75
52D-XXD12RNL	±12	±75	60
52D-XXD12NNL	±12	±75	75
52D-XXS15RNL	15	120	60
52D-XXS15NNL	15	120	75
52D-XXD15RNL	±15	±60	60
52D-XXD15NNL	±15	±60	75
52D-XXS24RNL	24	75	60
52D-XXS24NNL	24	75	80
52D-XXD24RNL	±24	±38	60
52D-XXD24NNL	±24	±38	80

**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				

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DC-DC Converter

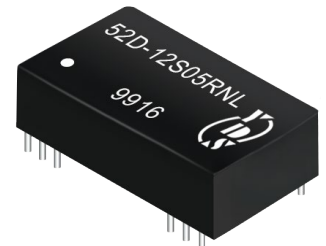
52D SERIES

1.8Watt

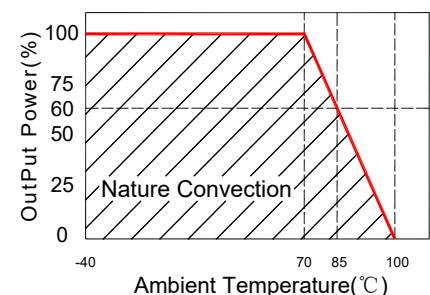
0.5KV Isolated

Single & Dual Output

DIL24



Temperature Derating Graph



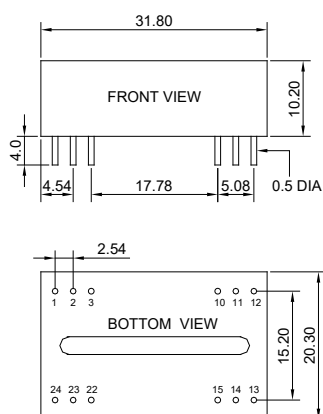
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Regulated (Continuous)				
Short Circuit Protection	Unregulated (Short Trem)			1	Sec
Line Regulation	Regulated			±0.3	%
Load Regulation	Regulated			±0.5	%
Ripple & Noise	BW=DC To 20MHZ			50	mVp-p
Line Regulation	Unregulated (For 1% of Vin)		1.2		%
Load Regulation	Unregulated (20% To 100% F.L)			10	%

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	2500000			Hours
MTBF	MIL-HDBK-217F@25°C (Regulated)	1500000			Hours
Weight			12.8		g
Dimensions		31.80x20.30x10.20			mm

Markings and Dimensions

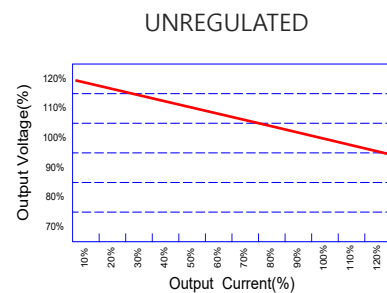


Unit : mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1, 24	2, 23	3, 22	10, 15	11, 14	12, 13
Single	+Vin	NC	NC	-Vout	+Vout	-Vin
Dual	+Vin	-Vout	Com	Com	+Vout	-Vin

Tolerance Envelope Graph

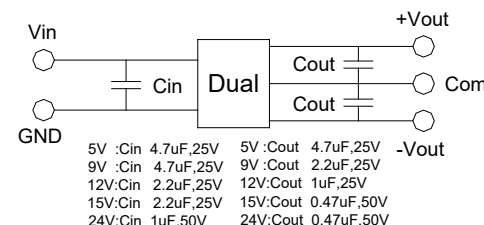
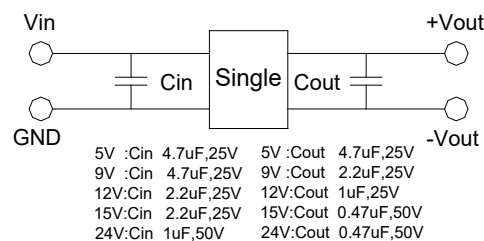


Part Number

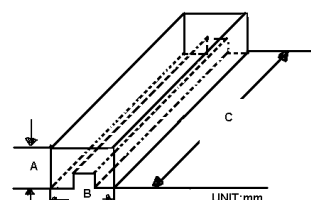
52D - 05 S 05 R NL  
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Regulated(R)Unregulated(N)
- F:RoHS Version

Recommended Test Circuit



Packaging



Size(mm)		
A	B	C
18.71	23.00	522