



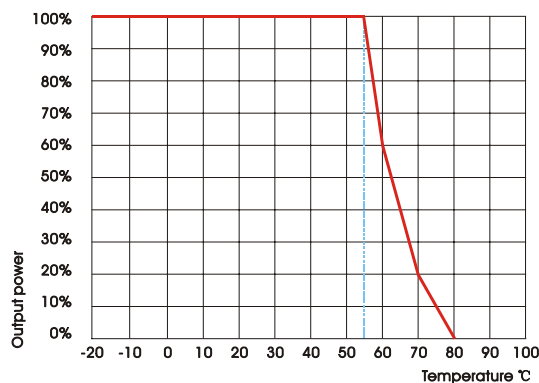
ND1-3 Series

DC/DC 窄压输入 1-3W (DC/DC narrow input 1-3W)

Typical performance

- ⊙ Narrow Range Input
- ⊙ Typical Efficiency: 60%
- ⊙ Switching frequency: 50 ~ 100 KHz
- ⊙ No Short-Circuit Protection
- ⊙ Input-output isolate
- ⊙ PCB Board in-line type installs
- ⊙ Metal case, Low Output Ripple

Temperature graph



Technology parameter Test condition: General Nominal Line, Tc=25°C, Rated resistant load unless other wise specified.

Input Features	Min	Nom	Max	Notes
Input voltage(Vdc)	4.75	5	5.25	±5%
	5.70	6	6.30	±5%
	11.40	12	12.60	±5%
	14.25	15	15.75	±5%
	22.80	24	25.20	±5%
	45.60	48	50.40	±5%
Remote ON/OFF	Non			

Output Features

Voltage accuracy	Normal input , full load	Vo1,Vo2	±3.0%
Line regulation		Vo1,Vo2	±1.0%
Load regulation	20% ~ 100%	Vo1,Vo2	±1.0%
Ripple and noise	20MHz BM	Vo≤50mVp-p	
Start delay time	typical		≤200mS

General Features

Efficiency	Normal input , full load	Vo≤5.0V, 50% typical	Vo>5.0V, 82% typical
Switching frequency		50~100KHz typical	max120KHz
Operating temperature		Free air	-10°C ~ +65°C

Storage temperature			-45°C ~ +105°C
Max case temperature			+80°C
Relative humidity			10%~90%
case material	Metal case		
Isolation Voltage	Input-case	Input-output	500Vdc ≤0.5mA/1min
MTBF	2X10 ⁵ Hrs		

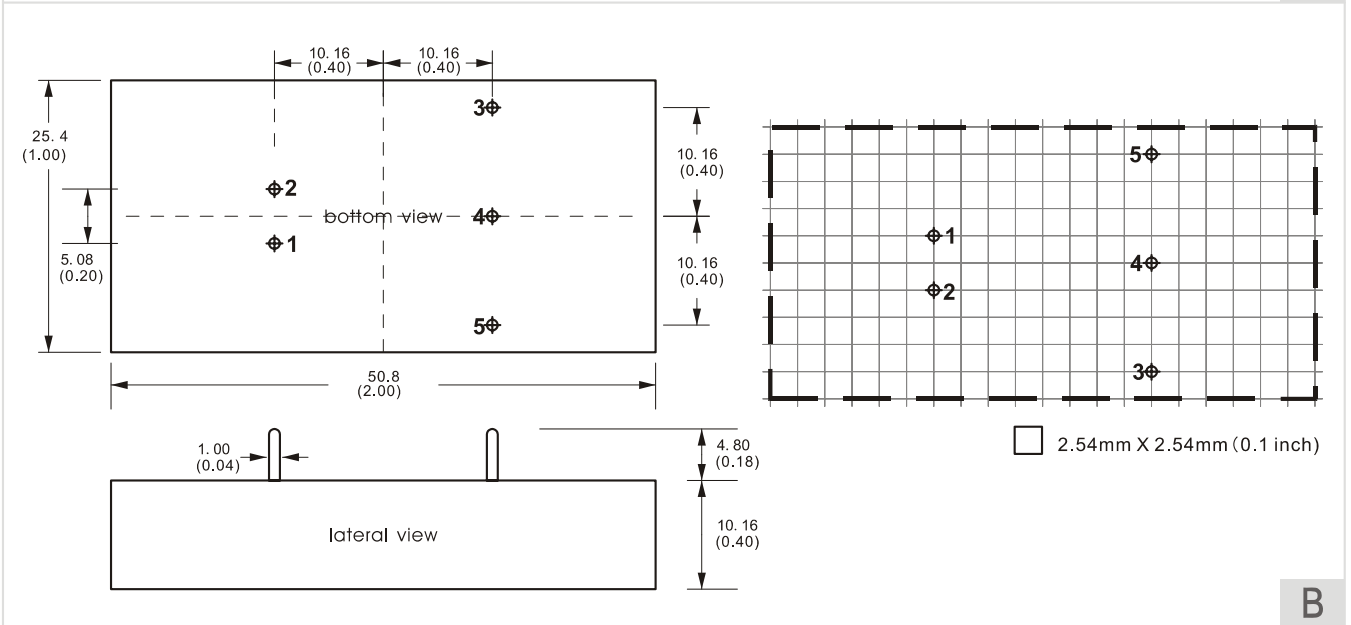
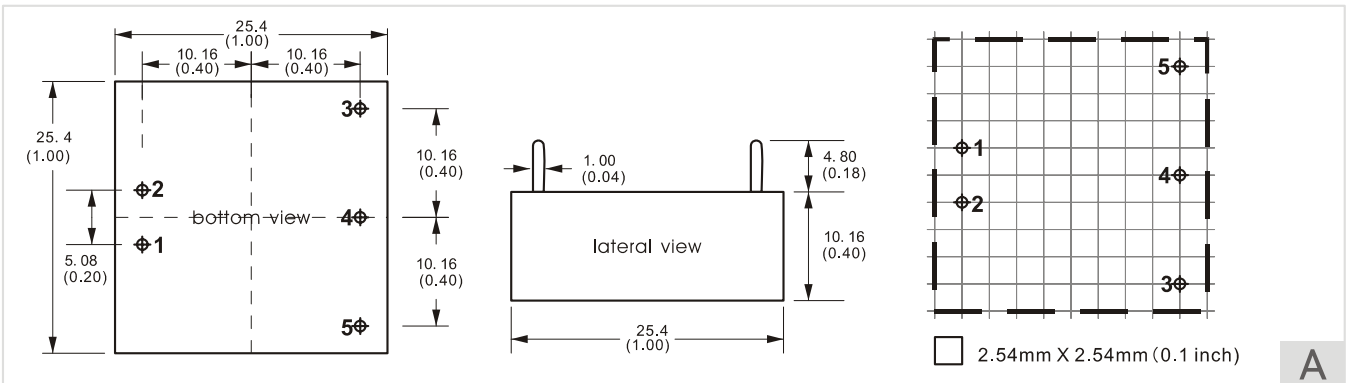
Product Nomination Method

example	N D 5 - 48 S 05		
	① ② ③	④ ⑤ ⑥	
①	Narrow input: ±5% normal voltage	④	Normal input voltage
②	Power adaptation mode: D (DC-DC)	⑤	S=Single route output, D=Dual route output
③	Output power(W)	⑥	output voltage

Typical product tabulates

TYPE	Input voltage range	Output voltage / current					
		VO1		VO2		VO3	
		V	mA	V	mA	V	mA
ND1-□S05A	5V (4.75~5.25V)	5V	100mA				
ND1-□S12A	6V (5.70~6.30V)	12V	100mA				
ND1-□S15A	12V (11.40~12.60V)	15V	100mA				
ND1-□S24A	15V (14.25~15.75V)	24V	50mA				
ND1-□S48A	24V (22.80~25.20V)	48V	50mA				
ND3-□S05A	48V (45.60~50.40V)	5V	200mA				
ND3-□S12A		12V	200mA				
ND3-□S05B		5V	500mA				
ND3-□S12B		12V	250mA				
ND3-□S15B/A		15V	200mA				
ND3-□S24B/A		24V	125mA				
ND1-□D05A		+5V	100 mA	-5V	100 mA		
ND1-□D12A		+12V	50 mA	-12V	50 mA		
ND1-□D15A		+15V	50 mA	-15V	50 mA		
ND1-□D24A		+24V	20 mA	-24V	20 mA		
ND3-□D12A		+12V	100 mA	-12V	100 mA		
ND3-□D05B		+5V	200 mA	-5V	200 mA		
ND3-□D012B		+12V	100 mA	-12V	100 mA		
ND3-□D15B/A		+15V	100 mA	-15V	100 mA		

Mechanical Data



Mechanical Data

Packing	L x W x H : mm	Packing No.
A	25.40 x 25.40 x 10.16	100100DC
B	50.80 x 25.40 x 10.16	200100DC

Pin Assignments

PIN NO.	1	2	3	4	5					
S	-Vin	+Vin	+Vout	NP	GND					
D	-Vin	+Vin	+Vout1	COM	-Vout2					

*Note: The power modules such as the definition of the pin does not match with the hand book, please refer to the actual item.