

**DNV-10 SERIES, 10WATT, 2:1 INPUT RANGE**

**FEATURES:**

- ✓ 3 years warranty
- ✓ 1500Vac isolation voltage
- ✓ Six-side shielded metal case with low ripple and noise
- ✓ Operating temperature range -40°C to +85°C
- ✓ Over voltage, over current, short circuit protection



Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DNV10-1211	12(9~18)	3.3	3000	85%
DNV10-1212		5.1	2000	87%
DNV10-1213		12.1	800	87%
DNV10-1214		15.1	700	89%
DNV10-1215		24.2	400	89%
DNV10-2411	24(18~36)	3.3	3000	87%
DNV10-2412		5.1	2000	88%
DNV10-2413		12.1	800	89%
DNV10-2414		15.1	700	90%
DNV10-2415		24.2	400	90%
DNV10-4811	48(36~72)	3.3	3000	87%
DNV10-4812		5.1	2000	89%
DNV10-4813		12.1	800	89%
DNV10-4814		15.1	700	90%
DNV10-4815		24.2	400	90%
DNV10-11011	110(66~160)	5.1	2000	89%
DNV10-11012		12.1	800	89%
DNV10-11013		15.1	700	90%
DNV10-11014		24.2	400	90%

**Notes:**

1. Other input and output models may available on request;
2. You may request for the models with heatsink, plus "R" in the suffix, e.g. DNV10-1211R.

**ELECTRICAL**

Output voltage accuracy	---	≤1%
Line regulation	Nominal Load, full voltage	±0.2% max.
Load regulation	20% ~ 100% rated load	±0.5% max.
Dynamic response (transient/recovery time)	5%-50%-75% load capability	ΔVo/Δt: ±5.0%/500μs

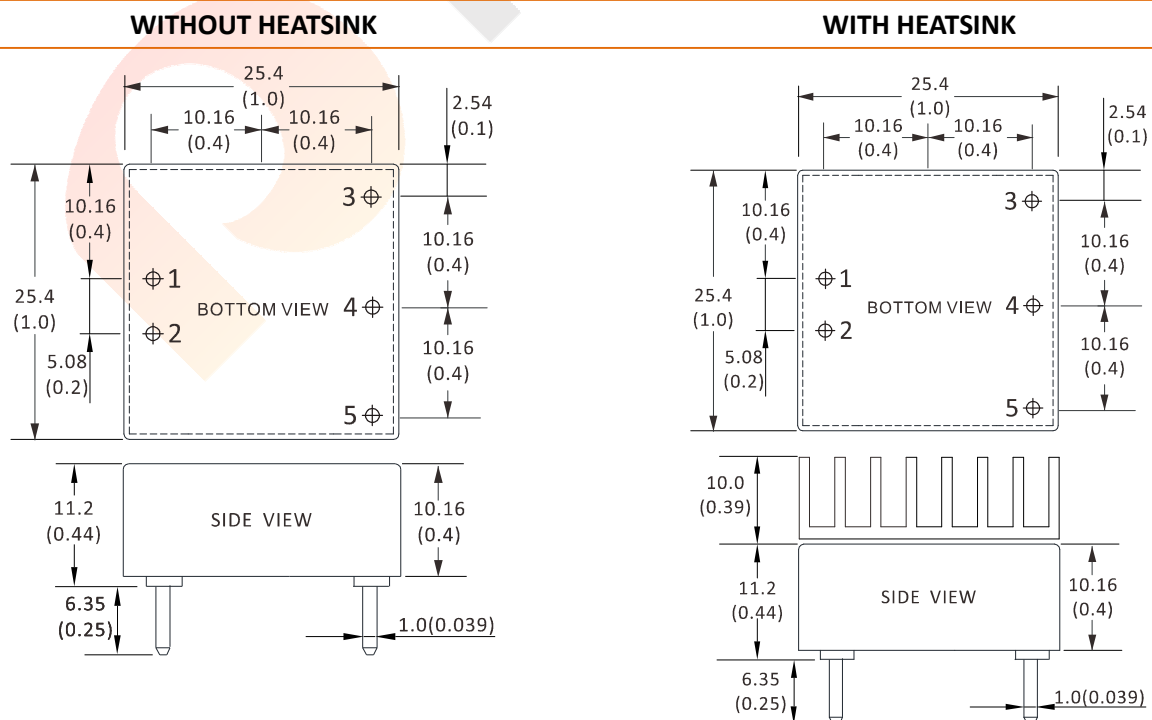
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**ELECTRICAL**

Ripple and noise	20MHz BM, full load	1% Vout max.
Isolation voltage (<2mA/min)	Input to output	1500Vac
	Input to case	1000Vac
	Output to case	500Vac
Isolation resistance	500Vdc	20MΩ
Temperature coefficient	---	±0.02%/°C max.
Operating temperature range	Auxiliary heat sink	-40°C to +85°C
Storage temperature range	---	-45°C to +120°C
Over current protection	---	Auto-recovery
Short circuit protection	---	Continuous auto-recovery
Over voltage protection	---	Auto-recovery
Relative humidity	---	10%-90% max.
Weight	---	20g
Conducted emission	---	CLASS A
MTBF	Bellcore TR-332, 25°C	2x10 <sup>5</sup> Hrs

**Notes: Unless otherwise specified, all the parameters of the test conditions are as follows: ambient temperature 25°C, the nominal input voltage, pure resistive nominal load.**

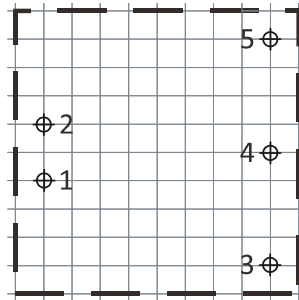
**MECHANICAL**



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MECHANICAL

PCB LAYOUT



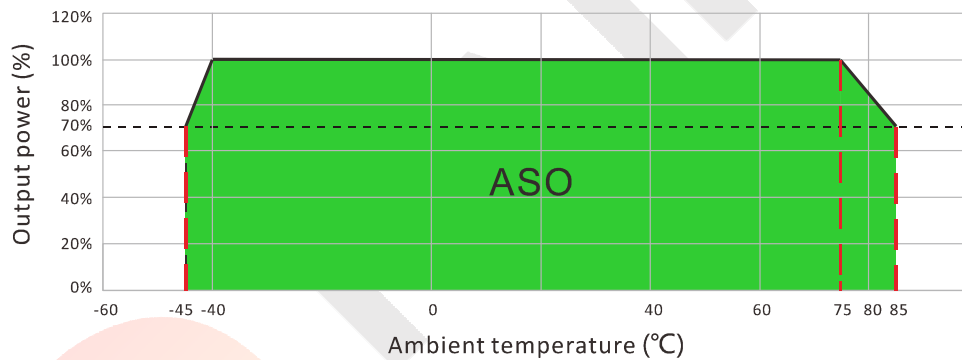
Unit: mm(inch)  
PCB vertical view  
Grid spacing: 2.54mm(0.1 inch)

CONNECTION

PIN #	SINGLE
1	+Vin
2	-Vin
3	+Vo
4	No Pin
5	GND

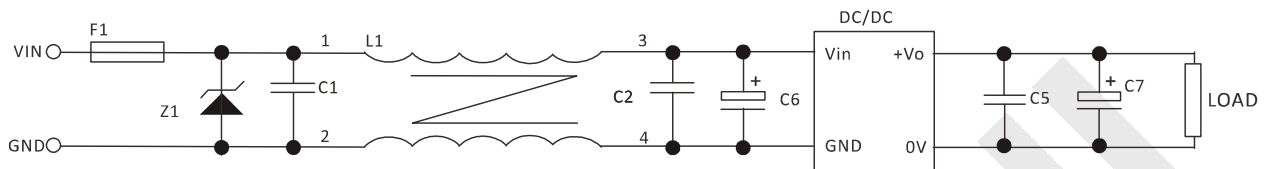
Note:  
\* Unit is mm(inch).

TEMPERATURE PROFILE



CAPACITIVE LOADS SELECTION

Vout: 3.3V 5V		Vout: 12V 5V		Vout: 24V	
Recommended value	MAX. value	Recommended value	MAX. value	Recommended value	MAX. value
10000µF	15000µF	1000µF	2200µF	470µF	1000µF

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**NOTES**
**RECOMMENDED TEST AND APPLICATION CIRCUIT**


1. TVS&FUSE will be helpful with over voltage protection and inrush limiting. Recommended FUSE should better be 1.5~2times of the rated current ;
2. The input filter capacitor C6 could select the aluminum electrolytic capacitors or tantalum capacitors, and the withstand voltage should be greater than the highest input voltage. Recommended capacitor should be between 22 $\mu$ F~100 $\mu$ F;
3. C1,C2 for the input filter capacitor, 0.1~1 $\mu$ F high-frequency ceramics capacitor or chip capacitor are recommended. The withstand voltage of output filter C5, C7 should be greater than the highest output voltage. Recommended capacitor of C7 should within 100 $\mu$ F and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1 $\mu$ F high-frequency ceramics capacitor or chip capacitor.