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%
DNV10-11012	110(66~160)	5.1	2000	89%
DNV10-11013		12.1	800	89%
DNV10-11014		15.1	700	90%
DNV10-11015		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

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

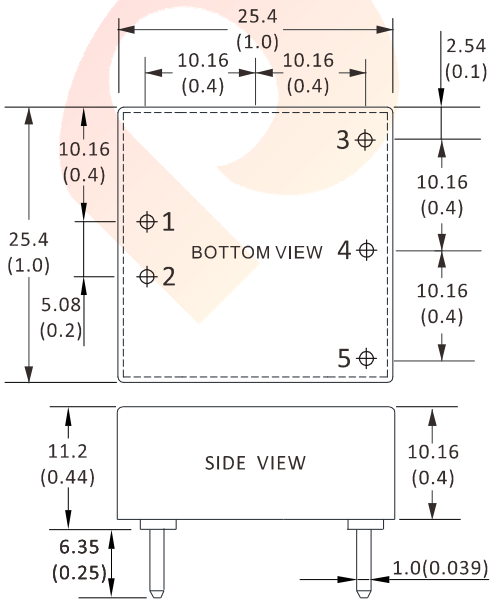
ELECTRICAL

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	$2x10^5$Hrs

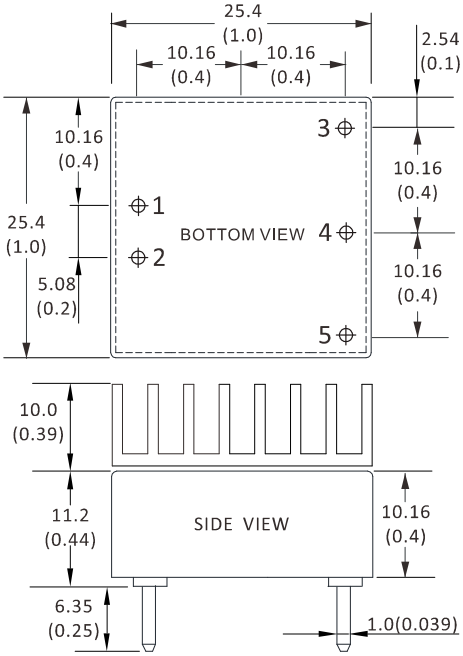
Notes: Unless otherwise specified, all the parameters of the test conditions are as follows: ambient temperature 25℃, the nominal input voltage, pure resistive nominal load.

MECHANICAL

WITHOUT HEATSINK



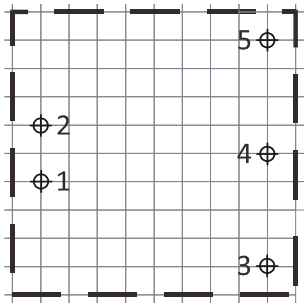
WITH HEATSINK



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

MECHANICAL

PCB LAYOUT



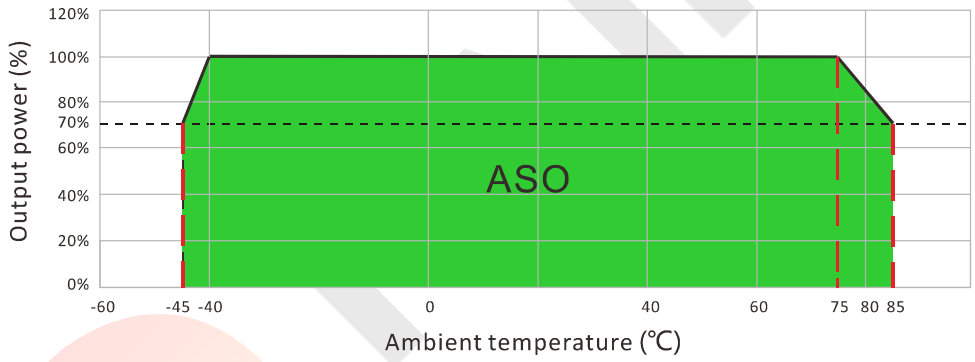
Unit : mm(inch)
PCB vertical view
Grid spacing: 2.54mm(0.1inch)

CONNECTION

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

Note:
* Unit is mm(inch).

TEMPERATURE PROFILE



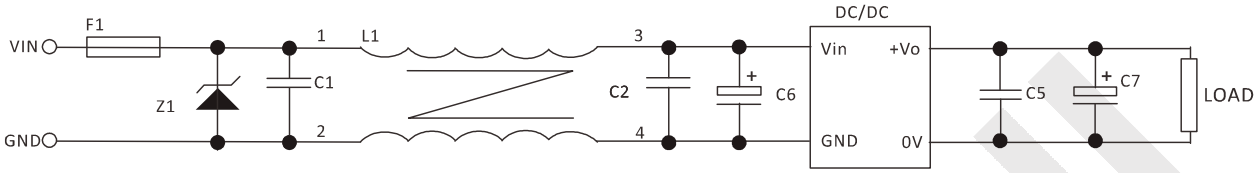
CAPACITIVE LOADS SELECTION

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

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

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 22μF~100μF;
3. C1,C2 for the input filter capacitor, 0.1~1μF 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 100μF and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1μF high-frequency ceramics capacitor or chip capacitor.