

DSV-100 SERIES, 100WATT, 2:1 INPUT RANGE
FEATURES:

- ✓ 3 year warranty
- ✓ Six-side shielded metal case
- ✓ Low ripple and noise
- ✓ Over current and short circuit protection
- ✓ Remote on/off
- ✓ Adjustable output voltage



| Model | Input voltage (Vdc) | Output voltage (Vdc) | Output current (A) | Efficiency Typ. |
|--------------|---------------------|----------------------|--------------------|-----------------|
| DSV100-1211 | 12(9~18) | 12 | 8.3 | 87% |
| DSV100-1212 | | 15 | 6.6 | 87% |
| DSV100-1213 | | 24 | 4.2 | 87% |
| DSV100-2411 | 24(18~36) | 12 | 8.3 | 87% |
| DSV100-2412 | | 15 | 6.6 | 87% |
| DSV100-2413 | | 24 | 4.2 | 87% |
| DSV100-4811 | 48(36~72) | 12 | 8.3 | 87% |
| DSV100-4812 | | 15 | 6.6 | 87% |
| DSV100-4813 | | 24 | 4.2 | 87% |
| DSV100-11011 | 110(72~144) | 12 | 8.3 | 87% |
| DSV100-11012 | | 15 | 6.6 | 87% |
| DSV100-11013 | | 24 | 4.2 | 87% |

Notes:

1. Other input and output models may available on request;
2. Above models are default to metal case and with heatsink, plus "R" in the suffix.

ELECTRICAL

| | | |
|--|-----------------------------|--|
| Input voltage range | 12V | 9-18Vdc |
| | 24V | 18-36Vdc |
| | 48V | 36-72Vdc |
| | 110V | 72-144Vdc |
| Remote control (Low level remote) | High level or vacant | Turn on |
| | Low level or connect ground | Turn off |
| Output voltage accuracy | --- | ±1 |
| Output voltage adjustable | --- | ±10% max. |
| Line regulation | Nominal Load, full voltage | ±0.2% |
| Load regulation | 20% ~ 100% rated load | ±0.5% |
| Dynamic response (transient/recovery time) | 5%-50%-75% load capability | $\Delta V_{o1}/\Delta t: \pm 4.0\%/500\mu s$ |

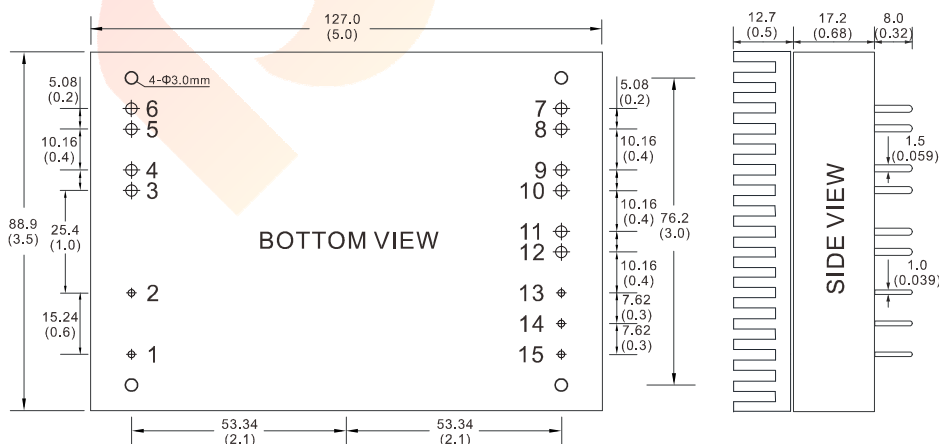
DSV-100 SERIES, 100WATT, 2:1 INPUT RANGE

ELECTRICAL

| | | |
|---------------------------------|--|--|
| Ripple and noise | 20MHz BM, full load | Vo≤5.0V, ≤50mVp-p Vo≥48V, ≤180mVp-p Other, ≤100mVp-p |
| Isolation voltage (<2mA/min) | Input to output Input to case | 1500Vdc 500Vdc |
| Switching frequency | 300KHz | 330KHz max. |
| Turn-on delay time | --- | ≤200ms |
| Operating temperature range | Free air | -25°C to +55°C |
| Storage temperature range | --- | -45°C to +105°C |
| Input under voltage protection | When input voltage is lower than the low input voltage | Auto-recovery |
| Over current protection | --- | Auto-recovery |
| Short circuit protection | --- | Continuous auto-recovery |
| Relative humidity | --- | 10%-90% max. |
| Weight | --- | 442.4g |
| 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°C, the nominal input voltage, pure resistive nominal load.

MECHANICAL



CONNECTION

| PIN # | SINGLE |
|-------|--------|
| 1 | REM |
| 2 | CASE |
| 3 4 | -Vin |
| 5 6 | +Vin |
| 7 8 | +Vo |
| 9 10 | GND |
| 11 12 | No pin |
| 13 | +S |
| 14 | TRIM |
| 15 | -S |

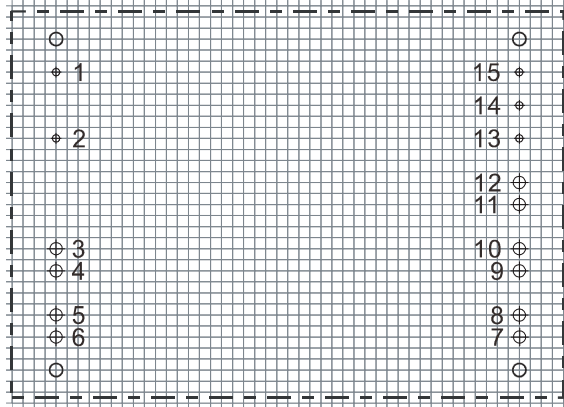
Note:

* Unit is mm(inch).

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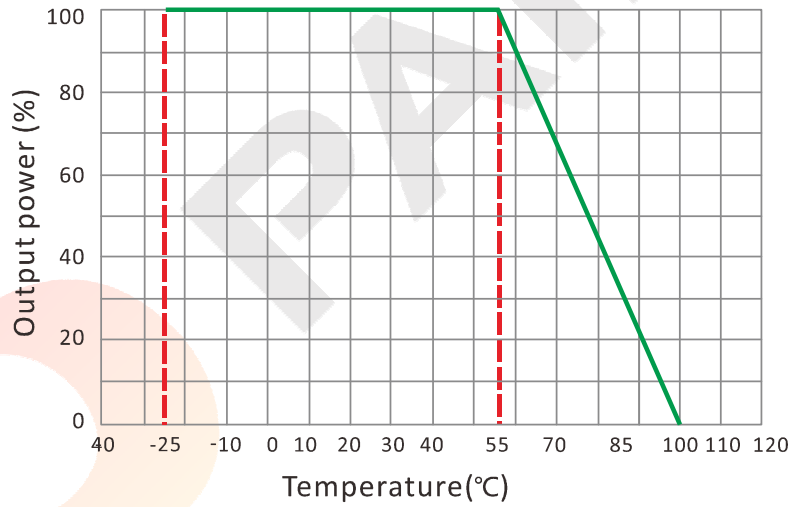
MECHANICAL

LAYOUT



Unit: mm(inch)
 PCB vertical view
 Grid spacing: 2.54mm(0.1inch)
 Note: PIN#1, 2, 13, 14, 15: $\Phi=1.0\text{mm}$,
 others $\Phi=1.5\text{mm}$

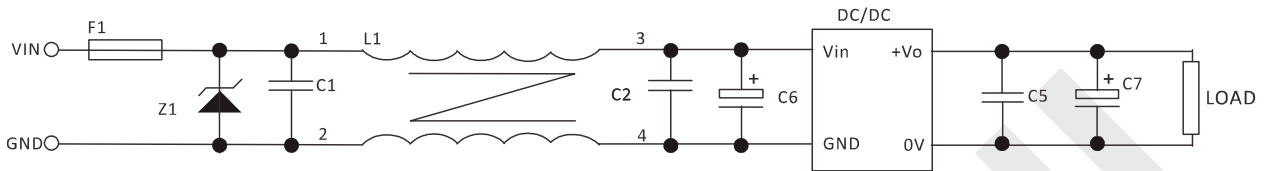
TEMPERATURE PROFILE



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NOTES

RECOMMENDED TEST AND APPLICATION CIRCUIT



1. TVS&FUSE be helpful with over voltage protection and inrush limiting. Recommended FUSE 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 μ F~100 μ F.
3. C1,C2 for the input filter capacitor,0.1~1 μ 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 better within 100 μ F and C5 connected with the chip to reduce the input voltage peak, recommended 0.1~1 μ F high-frequency ceramics capacitor or chip capacitor.