DHV-15 SERIES, 15WATT, 2:1 INPUT RANGE

FEATURES:

- ✓ **Wide input range(2:1)**
- ✓ **Six-side shielded metal case**
- ✓ **Low ripple and noise**
- ✓ **Over current and short circuit protection**
- ✓ **Typical efficiency up to 82%**
- ✓ **2 year warranty**

Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DHV15-0511	5(4.5~9)	5	3000	80%
DHV15-0512		12	1250	82%
DHV15-0513		15	1000	82%
DHV15-0514		24	625	82%
DHV15-0521		±5	±1500	80%
DHV15-0522		±12	±625	82%
DHV15-0523		±15	±500	82%
DHV15-0524		±24	±310	82%
DHV15-1211	12(9~18)	5	3000	80%
DHV15-1212		12	1250	82%
DHV15-1213		15	1000	82%
DHV15-1214		24	625	82%
DHV15-1221		±5	±1500	80%
DHV15-1222		±12	±625	82%
DHV15-1223		±15	±500	82%
DHV15-1224		±24	±310	82%
DHV15-2411	24(18~36)	5	3000	80%
DHV15-2412		12	1250	82%
DHV15-2413		15	1000	82%
DHV15-2414		24	625	82%
DHV15-2421		±5	±1500	80%
DHV15-2422		±12	±625	82%
DHV15-2423		±15	±500	82%
DHV15-2424		±24	±310	82%
DHV15-4811	48(36~72)	5	3000	80%
DHV15-4812		12	1250	82%
DHV15-4813		15	1000	82%
DHV15-4814		24	625	82%
DHV15-4821		±5	±1500	80%

DHV-15 SERIES, 15WATT, 2:1 INPUT RANGE

Model	Input voltage (Vdc)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
DHV15-4822	48(36~72)	±12	±625	82%
DHV15-4823		±15	±500	82%
DHV15-4824		±24	±310	82%
DHV15-11011	110(72~144)	5	3000	80%
DHV15-11012		12	1250	82%
DHV15-11013		15	1000	82%
DHV15-11014		24	625	82%
DHV15-11021		±5	±1500	80%
DHV15-11022		±12	±625	82%
DHV15-11023		±15	±500	82%
DHV15-11024		±24	±310	82%

Notes:

1. Other input and output models may available on request;

2. Above models are default to metal case.

ELECTRICAL

Input voltage range	5V	4.5-9Vdc
	12V	9-18Vdc
	24V	18-36Vdc
	48V	36-72Vdc
	110V	72-144Vdc
Output voltage accuracy	---	Vo1, Vo2: ±1%, ±3%
Line regulation	Nominal Load, full voltage	Vo1, Vo2: ±0.2%, ±1.5%
Load regulation	20% ~ 100% rated load	Vo1, Vo2: ±0.5%, ±4%
Dynamic response (transient/recovery time)	5%-50%-75% load capability	ΔVo1/Δt: ±4.0%/500μs
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	1500Vdc
	Input to case	500Vdc
Switching frequency	300KHz	330KHz max.
Turn-on delay time	---	≤200ms
Operating temperature range	Free air	-25℃ to +55℃
Storage temperature range	---	-45℃ to +105℃
Input under voltage protection	When input voltage is lower than the low input voltage	Auto-recovery

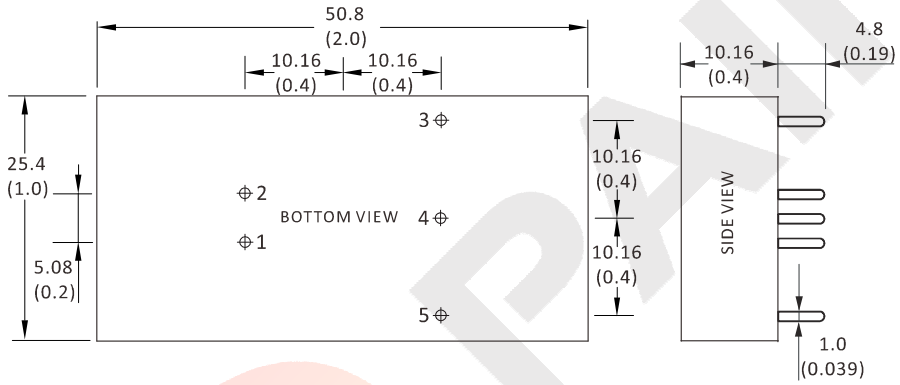
DHV-15 SERIES, 15WATT, 2:1 INPUT RANGE

ELECTRICAL

Over current protection	---	Auto-recovery
Short circuit protection	---	Continuous auto-recovery
Cooling method	---	Cooling by air convection
Relative humidity	---	10%-90% max.
Weight	---	23.5g
MTBF	Bellcore TR-332, 25℃	$2x10^5$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



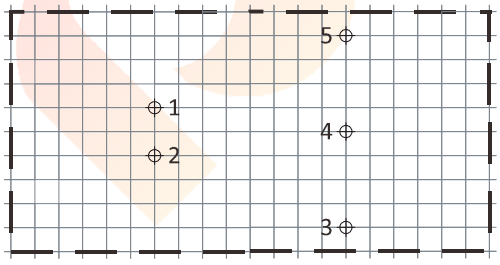
CONNECTION

PIN #	SINGLE	DUAL
1	-Vin	-Vin
2	+Vin	+Vin
3	+Vo	+Vo1
4	No pin	COM
5	GND	-Vo2

Note:

* Unit is mm(inch).

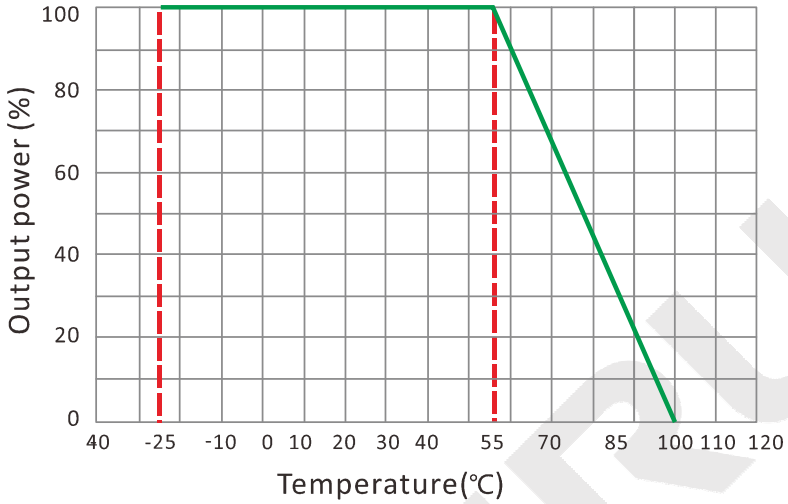
LAYOUT



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

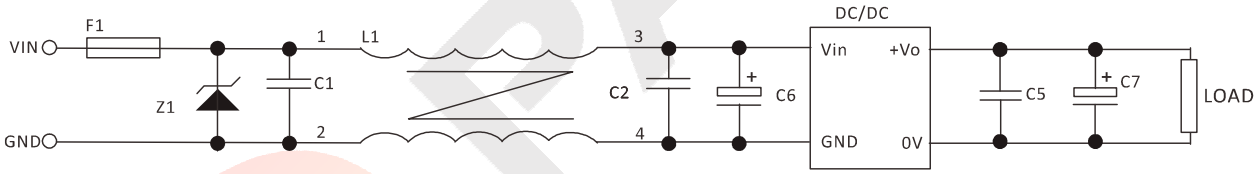
DHV-15 SERIES, 15WATT, 2:1 INPUT RANGE

TEMPERATURE PROFILE



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 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 better 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.