Ultra-compact PCB Mountable

Matsusada Precision

Miniature HV Power Supplies

TA Series TC Series 1kV to 2kV 1.5W

01.031.02 44-1

FEATURES

- Ultra-compact, PCB mountable
- Low ripple, 5mVp-p(1kV output type)
- Low Noise due to metal shielding
- Well-regulated, high performance
- External potentiometer or external control voltage programming
- Arc and continuous short circuit protection
- NRTL(UL1950), TÜV, CE approved

SUMMARY

TA and TC Series are miniaturized, well regulated high voltage power supplies suitable for photomultiplier. They feature exceptionally low noise, external potentiometer or voltage control and fully protection against arc and continuous output short circuit.

Output voltage (kVdc)	Output		Model(*Specify "12" for 12Vdc, "15" for 15Vdc input.)				Ripple (mVp-p)
	Current(mA)	Minimum load(Ω)☆	Positive polar output		Negative polar output		
0 to 1	1.5	350k	TA-1P-*	TC-1P-*	TA-1N-*	TC-1N-*	5
0 to 1.5	1	750k	TA-1.5P-*	TC-1.5P-*	TA-1.5N-*	TC-1.5N-*	7
0 to 2	0.7	1.5M	TA-2P-*	TC-2P-*	TA-2N-*	TC-2N-*	10

☆ Rated output current is not to be drawn at low output voltage range (Output current x Minimum load). Use at larger than minimum load.

NOTE This power supply is designed with adequate consideration for high voltage safety as an integrated power supply. Yet, please make sure to ground the case for further safety when using.

SPECIFICATIONS

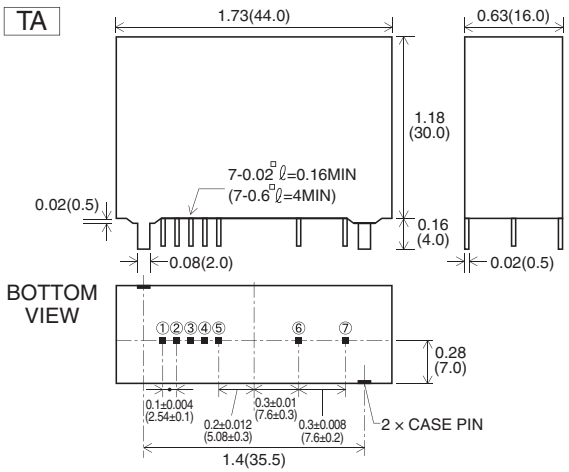
Input voltage/current	+12Vdc ±1Vdc 230mA typ. +15Vdc ±1Vdc 180mA typ.
Output control	By external 5kΩ potentiometer or external control voltage(Vcon-in) 0 to 6Vdc(Input impedance ≧ 30kΩ)
Regulation	Line : ±0.02% of max voltage for Vin ±1V Load : 0.02% of max voltage for full load change
Stability	0.02%/Hr 0.05%/8Hr
Temperature coefficient	70ppm/°C
Protection	Overload, arc and continuous output short circuit
Temperature range	Operating : -10°C to +50°C Storage : -25°C to +85°C
Humidity	20% to 80%RH(no condensation)
Weight	60g approx.

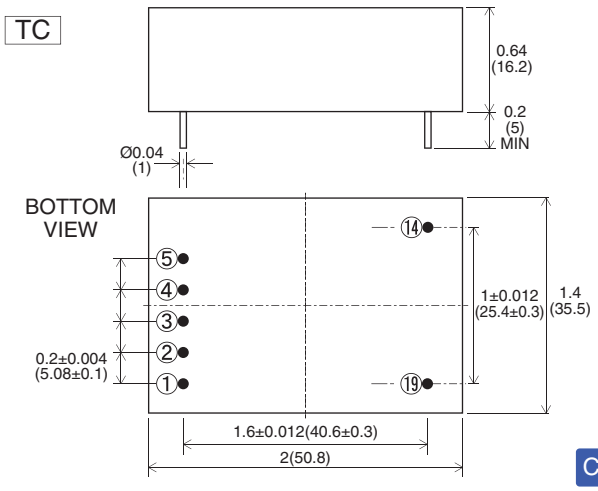
Note : • Specifications are at the maximum rated output after ½Hr warm-up.
• Specifications are subject to change without notice.

OPTION

LS : remote HV ON/OFF
Enable to HV ON/OFF with contact signal.
When open collector,
ON ≦ 0.3V(Low)
OFF ≧ 2V(High)
Add LS to the model number.
i.e. : TA-1P-12LS, TC-1.5N-15LS

DIMENSIONS inch(mm)





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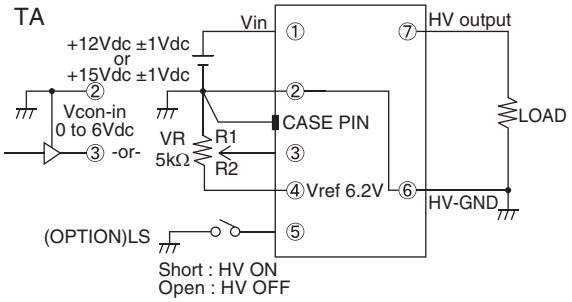
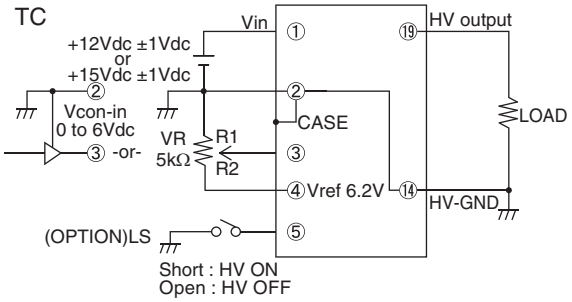
CONNECTION DIAGRAM

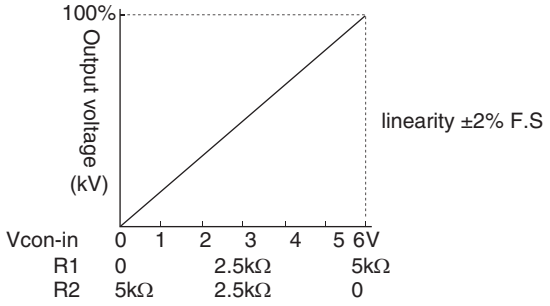


1. PIN ②, ⑥ are internally connected (isolated from CASE).
2. CASE PIN should be always connected to ground.
3. Input impedance of Pin ③ is greater than 30kΩ
4. External potentiometer of T.C ≦ 100ppm/°C, PC ≧ ¼W is recommended.

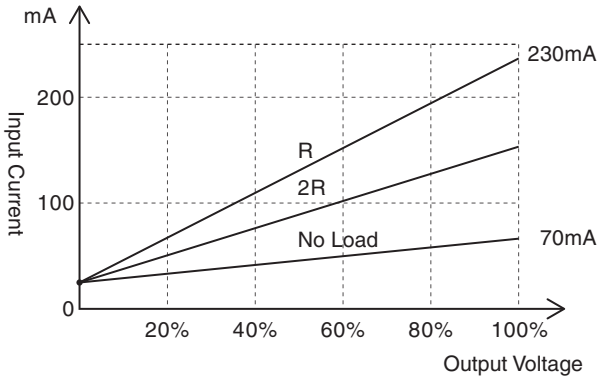


1. PIN ②, ⑭ and CASE are internally connected.
2. Input impedance of Pin ③ is greater than 30kΩ
4. External potentiometer of T.C ≦ 100ppm/°C, PC ≧ ¼W is recommended.

CHARACTERISTICS OF OUTPUT VOLTAGE SETTING



INPUT CURRENT



- It is TYP value in 12V input type.
- The 15V input type makes the current value to be 80%.

$$\left(R=\frac{Vo\ max}{Io\ max}\right)$$

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