Ultra-compact PCB Mountable

Matsusada Precision

Miniature HV Power Supplies

TA Series TC Series 1kV to 2kV 1.5W

1031-01Pa-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 current (mA)☆	Model(*Specify "12" for 12Vdc, "15" for 15Vdc input.)				Ripple (mVp-p)
		Positive polar output		Negative polar output		
0 to 1	1.5	TA-1P-*	TC-1P-*	TA-1N-*	TC-1N-*	5
0 to 1.5	1	TA-1.5P-*	TC-1.5P-*	TA-1.5N-*	TC-1.5N-*	7
0 to 2	0.7	TA-2P-*	TC-2P-*	TA-2N-*	TC-2N-*	10

☆Output voltage range for this output current is 50% to 100% of maximum output voltage.
☆Output current must be derated linearly when operating at levels below 50% of the output voltage capability.

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 0 ≦ 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 0.007%/℃

Protection Overload, arc and continuous output short circuit

Temperature range Operating : -10℃ to +50℃
Storage : -25℃ to +85℃

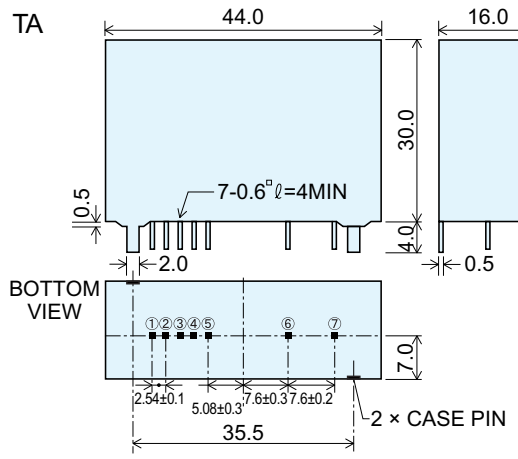
Weight 60g approx

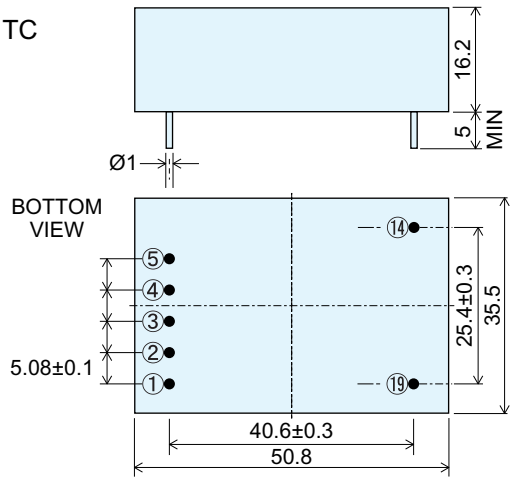
Note : • Specifications are at the maximum rated output after ½Hr warm-up.
• Specifications are subject to change without notice.

OPTION

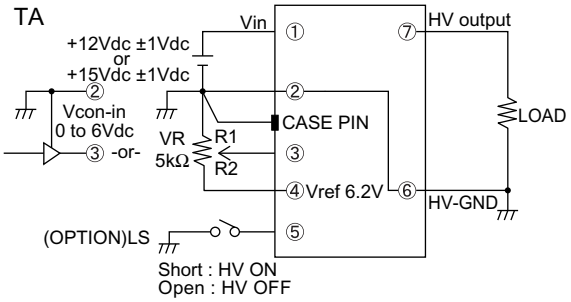
LS : remote HV ON/OFF
Enable to HV ON/OFF with contact signal.
When open collector,
ON ≦ 0.3V(Low)
OFF ≧ 2V(High)
Add LS to the model number.
i.e. : TA-1P-12LS, TC-1.5N-15LS

DIMENSIONS mm

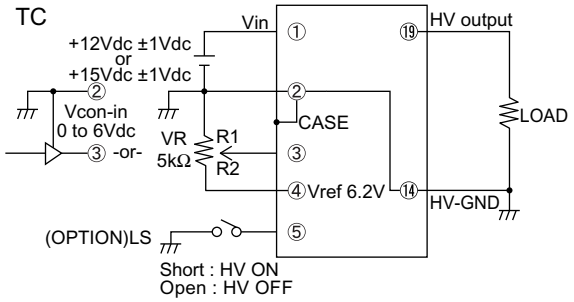




CONNECTION DIAGRAM

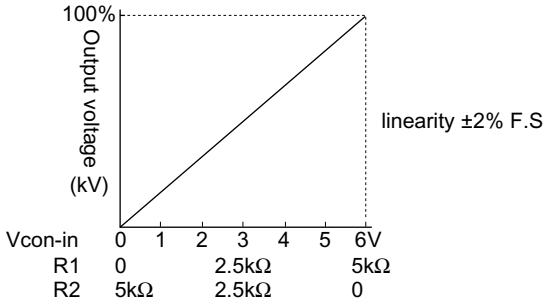


1. PIN ②, ⑥ are internally connected (isolated from CASE).
2. CASE PIN should be always connected to ground.
3. Input impedance of Pin ③ is greater than 30kΩ
4. External potentiometer of T.C ≦ 100ppm/°C, PC ≧ ¼W is recommended.

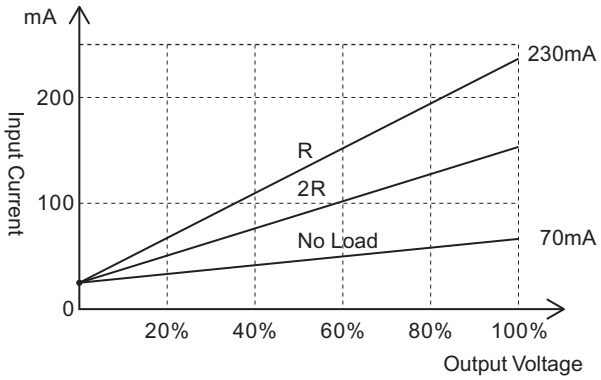


1. PIN ②, ⑭ and CASE are internally connected.
2. Input impedance of Pin ③ is greater than 30kΩ
4. External potentiometer of T.C ≦ 100ppm/°C, PC ≧ ¼W is recommended.

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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