

Compact and Lightweight

The C10764 series is a compact PC-board mountable high voltage power supply, especially designed for photomultiplier tubes. The design offers better performance.

The C10764 output negative polarity and the C10764-50 output positive polarity high voltages.



FEATURES

- Low ripple / noise
- Very compact and lightweight
- High stability
- Low power consumption
- Ample protective and fail-safe functions

SPECIFICATIONS

Parameter		C10764	C10764-50	Unit
Input Voltage Range		+15 ± 1		V
Input Current ^(A)	with no load	20		mA
	with full load	170		
Variable Output Voltage Range		0 to -1250	0 to +1250	V
Specification Guaranteed Output Voltage Range		-200 to -1250	+200 to +1250	V
Output Current		Max. 1.0		mA
Line Regulation Against ±1 V Input Change ^{(A)(B)}		Typ. ±0.01		%
Load Regulation Against 0 % to 100 % Load Change ^(A)		Typ. ±0.01		%
Ripple / Noise (p-p) ^{(A)(B)}		Typ. 0.01		%
Output Voltage Control		By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ ±2.5 kΩ)		—
Controlling Voltage Input Impedance		Typ. 80		kΩ
Reference Voltage Output		Typ. +5.2 (with 50 kΩ external potentiometer)		V
Output Voltage Setting (Absolute Value)		Typ. ((Controlling Voltage × 250) ± 0.5 %) ± 3		V
Output Voltage Rise Time (0 % → 99 %) ^{(A)(B)}		Typ. 100		ms
Temperature Coefficient ^{(A)(B)}		Typ. ±0.01		% / °C
Operating Ambient Temperature ^{(A)(B)}		0 to +40		°C
Operating Ambient Humidity ^(C)		Below 80 %		—
Storage Temperature		-20 to +60		°C
Storage Humidity ^(C)		Below 80 %		—
Weight		31		g
Protective Functions		Units protected against reversed power input, reversed / excessive controlling voltage input, continuous overloading / short circuit in output		—

NOTE: (A)At maximum output voltage.

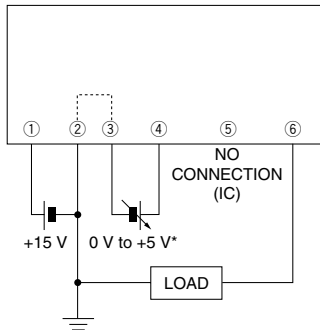
(B)At maximum output current.

(C)No condensation.

COMPACT HIGH VOLTAGE POWER SUPPLY C10764 SERIES

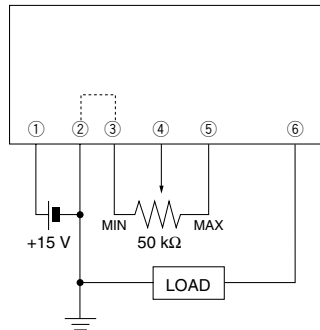
Figure 1: Connection Diagrams

● OUTPUT VOLTAGE CONTROL BY EXTERNAL VOLTAGE



*The instability in the external controlling voltage should be minimised as it directly affects the output voltage quality.

● OUTPUT VOLTAGE CONTROL BY EXTERNAL POTENTIOMETER



PIN ASSIGNMENT

- ① +15 V IN
 - ② GND 1 (Input/Output GND)
 - ③ GND 2 (Controlling Voltage GND)
 - ④ HV ADJ (Controlling Voltage Input)
 - ⑤ Vref OUT (Reference Voltage Output : +5.2 V Typ.)
 - ⑥ HV OUT
- The housing is internally connected to pin ②.
 - Pins ② and ③ are internally connected.

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Figure 2: Output Voltage Controlling Characteristic

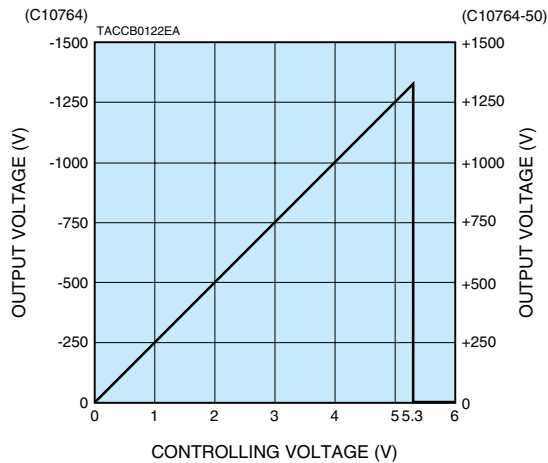
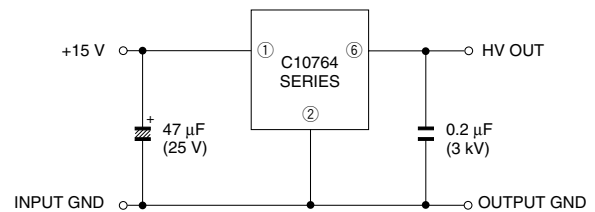


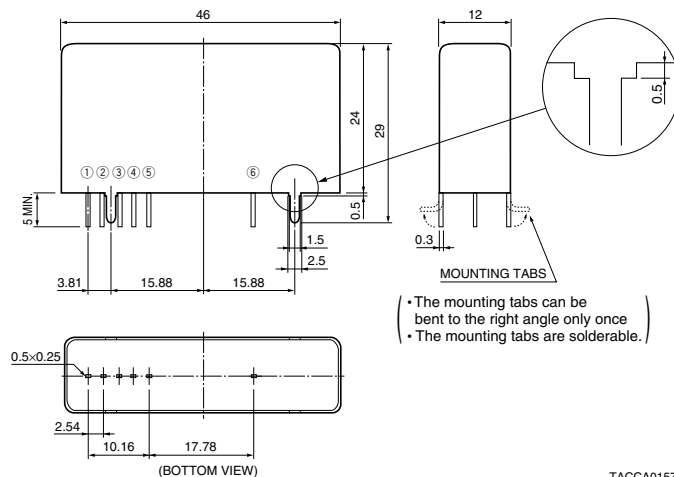
Figure 3: Example of Ripple / Noise Reduction Circuit



* The ripple / noise can be halved by adding capacitors as illustrated above.

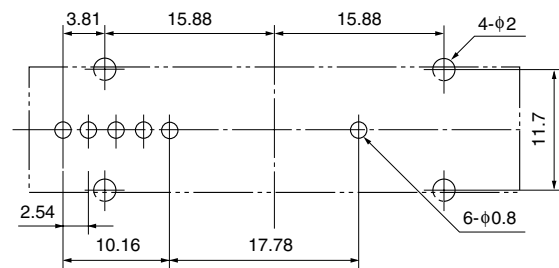
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Figure 4: Dimensional Outline (Unit: mm)



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Drilling Data for PC Board (Soldering Face)



TACCA0159EB

* PATENT: USA No.5548502, 5568343 JAPAN: No.2758552, 2784136 EUROPE: No.641066, 649222

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