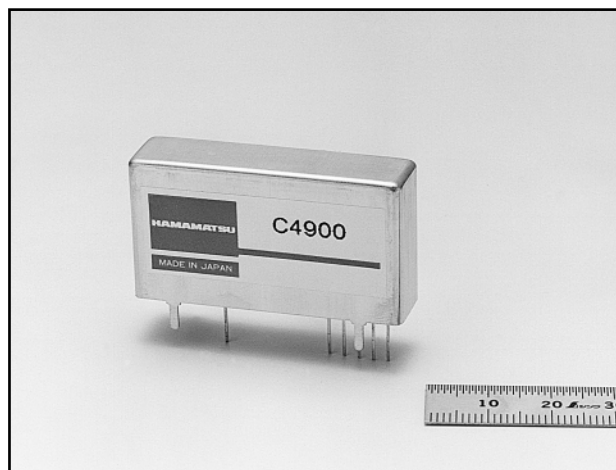


The C4900 series are compact PC-board mountable high voltage power supplies, especially designed for photomultiplier tubes. The design offers better performance and improved fail-safe protection.
The C4900 and -01 output negative polarity and the C4900-50 and -51 output positive polarity high voltages.

FEATURES

- Compact and Lightweight
- High stability
- Low Power Consumption
- Fast Response
- Wide Variable Output Range
- Ample Protective and Fail-safe Functions



SPECIFICATIONS

Parameter		C4900	C4900-01	C4900-50	C4900-51	Unit
Input Voltage Range		$+15 \pm 1$	$+12 \pm 0.5$	$+15 \pm 1$	$+12 \pm 0.5$	V
Input Current ^(a)	with no load	14	15	14	15	mA (Typ.)
	with full load	90	95	90	95	
Variable Output Range		0 to -1250		0 to +1250		V
Specification Guaranteed Output Voltage Range		-200 to -1250		+200 to +1250		V
Output Current ^(b)		0.6	0.5	0.6	0.5	mA (Max.)
Line Regulation against ± 1 V or 0.5 V Change ^(b)		± 0.01				% (Typ.)
Load Regulation against 0 % to 100 % Load Change ^(a)		± 0.01				% (Typ.)
Ripple / Noise (p-p) ^(b)		0.007				% (Typ.)
Output Voltage Controlling Modes		By external controlling voltage (0 V to +5 V) or external potentiometer (50 k Ω \pm 2.5 k Ω)				—
Controlling Voltage Input Impedance		80				k Ω (Typ.)
Reference Voltage Output		+5.13 (with 50 k Ω external potetiometer)				V (Typ.)
Output Voltage Setting (Absolute value)		(Controlling voltage \times 250) \pm 0.5 %				V (Typ.)
Output Voltage Rise Time (0 % \rightarrow 99 %) ^(b)		50				ms (Typ.)
Temperature Coefficient ^(b)		± 0.01				%/ $^{\circ}$ C (Typ.)
Operating Temperature Range ^(b)		0 to +50				$^{\circ}$ C
Storage Temperature Range		-20 to +70				$^{\circ}$ C
Dimensions (W \times H \times D)		46 \times 24 \times 12				mm
Weight		31				g
Protective Functions		Units protected against reversed power input, reversed/excessive controlling voltage input, continuous overloading/short circuit in output				—

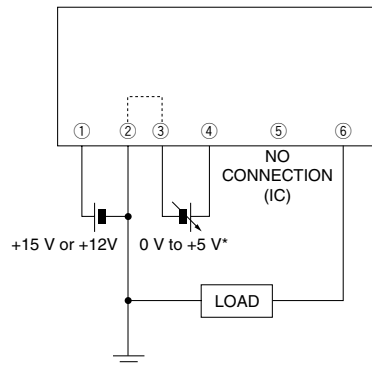
^(a) At Maximum Output Voltage.

^(b) At Maximum Output Voltage and Current.

HIGH VOLTAGE POWER SUPPLY UNIT C4900 SERIES

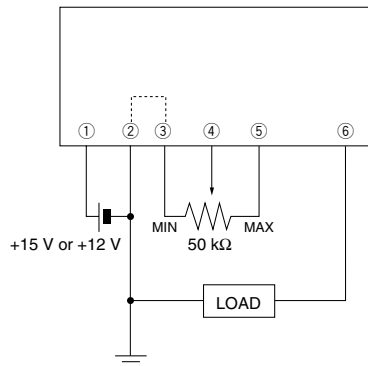
Figure 1: Output Voltage Controlling

BY EXTERNAL VOLTAGE



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

● BY EXTERNAL POTENTIOMETER



PIN ASSIGNMENT

- ① +15 V or +12 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 : 5.13V 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

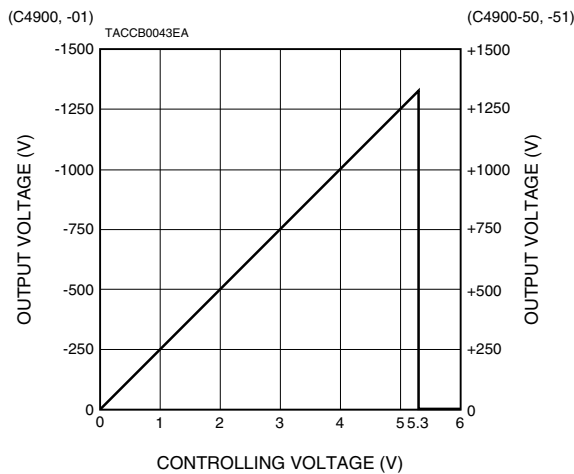
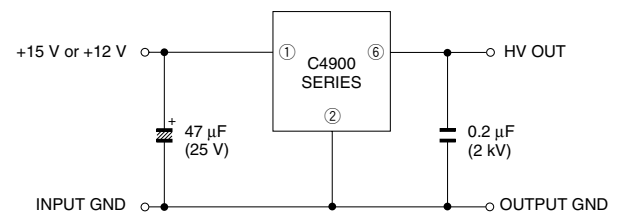


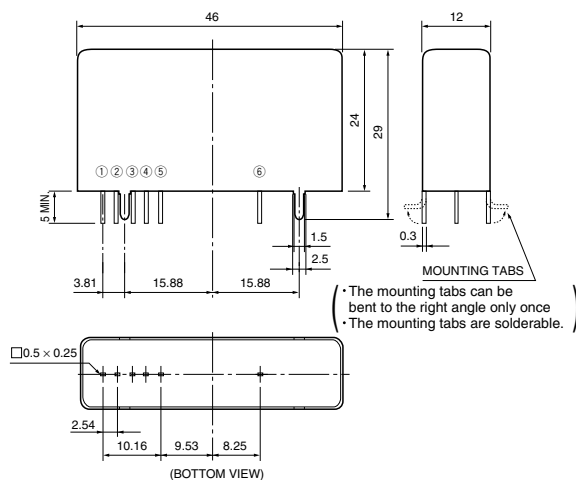
Figure 3: Example of Ripple/Noise Reduction Circuit



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

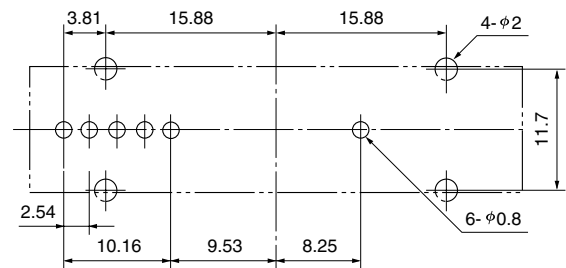
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Figure 4: Dimensional Outline (Unit: mm)



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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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TACC1013E02
MAY. 2001 IP
Printed in Japan (500)