

The C9619 series is a compact PC-board mountable high voltage power supply, especially designed for photomultiplier tubes. The design offers better performance and completed fail-safe protection.

The C9619 and -01 output negative polarity and the C9619-50 and -51 output positive polarity high voltages.

## FEATURES

- Compact and Lightweight
- High Stability
- High Output Power (2 kV / 2 mA)
- Completed Fail-safe Functions
- Six-plane Metal Shielded



## SPECIFICATIONS

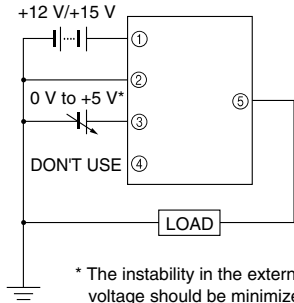
Parameter			C9619	C9619-01	C9619-50	C9619-51	Unit
Input Voltage			+15 ± 1	+12 ± 1	+15 ± 1	+12 ± 1	V
Input Current <sup>(A)</sup>	with no load	Typ.	120	100	120	100	mA
	with full load	Typ.	380	460	380	460	
Variable Output Voltage Range			0 to -2000		0 to +2000		V
Specification Guaranteed Output Voltage Range			-320 to -2000		+320 to +2000		V
Output Current		Max.	2				mA
Line Regulation Against ± 1 V Input Change <sup>(A)(B)</sup>			Typ. ±0.01	±0.03	±0.01	±0.03	%
Load Regulation Against 0 % to 100 % Load Change <sup>(A)</sup>		Typ.	±0.03				%
Ripple / Noise (p-p) <sup>(A)(B)</sup>			Typ. 0.003 % (60 mV)				—
Output Voltage Control			By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ)				—
Controlling Voltage Input Impedance		Typ.	110		97		kΩ
Reference Voltage Output			Typ. +5.2				V
Output Voltage Setting (Absolute Value)			Typ. Controlling voltage × 400				V
Output Voltage Rise Time (0 % → 99 %) <sup>(A)(B)</sup>			Typ. 150				ms
Temperature Coefficient <sup>(A)(B)</sup>			Typ. ±0.01				%/°C
Operating Ambient Temperature <sup>(A)(B)</sup>			0 to +40				°C
Operating Ambient Humidity <sup>(C)</sup>			Below 85				%
Storage Temperature			-20 to +60				°C
Storage Humidity <sup>(C)</sup>			Below 90				%
Weight		Typ.	100				g
Protective Functions			Units protected against reversed power input, reversed / excessive controlling voltage input, continuous overloading / short circuit in output				—

<sup>(A)</sup>At maximum output voltage. <sup>(B)</sup>At maximum output current. <sup>(C)</sup>No condensation

# HIGH VOLTAGE POWER SUPPLY C9619 SERIES

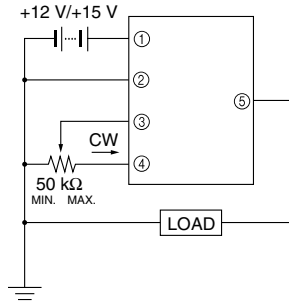
Figure 1: Connection Diagrams

## ● Output Voltage Control By External Voltage



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

## ● Output Voltage Control By External Potentiometer



- PIN ASSIGNMENT**
- ① Vcc +12 V or +15 V
  - ② GND
  - ③ Vcont
  - ④ Vref +5.2 V Typ.
  - ⑤ HV OUT

TACCC0139EA

Figure 2: Output Voltage Controlling Characteristic

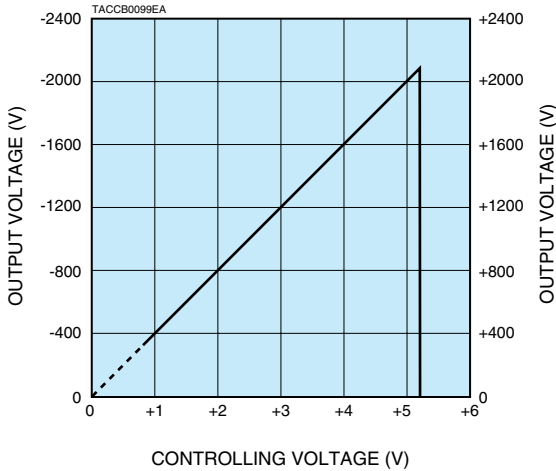
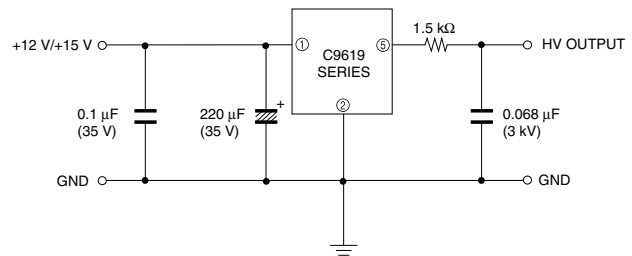


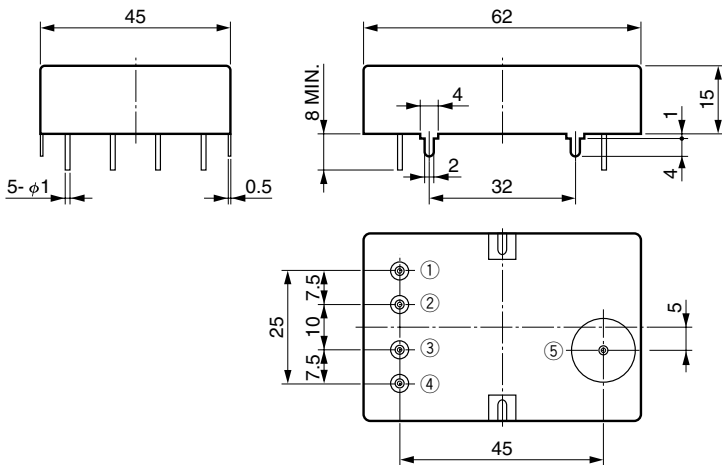
Figure 3: Example of Ripple Noise Reduction Circuit



\*The ripple noise can be reduced to approx. 1/3 by adding capacitors as illustrated above.

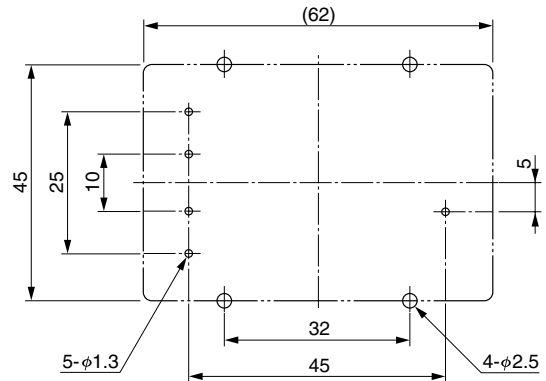
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Figure 4: Dimensional Outline (Unit: mm)



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## Drilling Data for PC Board (Soldering Face)



TACCA0317EA

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### HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, P. O. Box 6910, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: [usa@hamamatsu.com](mailto:usa@hamamatsu.com)

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: [info@hamamatsu.de](mailto:info@hamamatsu.de)

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: [infos@hamamatsu.fr](mailto:infos@hamamatsu.fr)

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road Welwyn Garden City Hertfordshire AL7 1BW, United Kingdom, Telephone: 44-(0)1707-294888, Fax: 44(0)1707-325777 E-mail: [info@hamamatsu.co.uk](mailto:info@hamamatsu.co.uk)

North Europe: Hamamatsu Photonics Norden AB: Thorshamnsgatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: [info@hamamatsu.se](mailto:info@hamamatsu.se)

Italy: Hamamatsu Photonics Italia: S.R.L.: Strada della Moia, 1/E, 20020 Arese, (Milano), Italy, Telephone: (39)02-935 81 733, Fax: (39)02-935 81 741 E-mail: [info@hamamatsu.it](mailto:info@hamamatsu.it)

China: Hamamatsu Photonics (China) Co., Ltd.: 1201 Tower B, Jiaming Center, 27 Dongsanhuan Road North, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: [hpc@hamamatsu.com.cn](mailto:hpc@hamamatsu.com.cn)

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