HAMAMATSU

# HIGH VOLTAGE POWER SUPPLY UNIT C9619 SERIES

The C9619 series are compact PC–board mountable high voltage power supplies, 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**



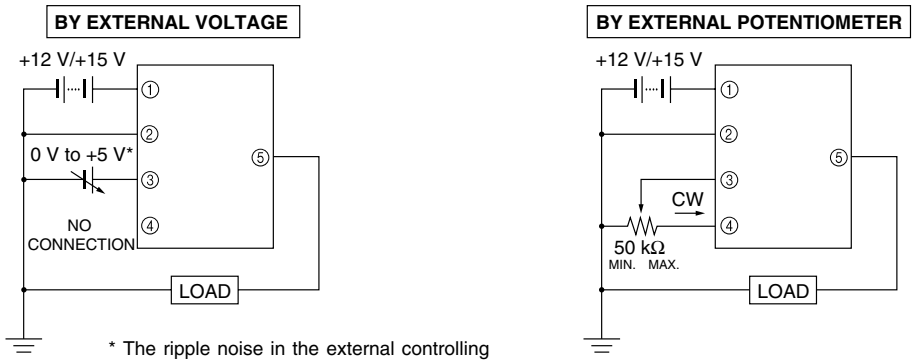

## SPECIFICATIONS

| Parameter | | | C9619 | C9619-01 | C9619-50 | C9619-51 | Unit |
|---|---|---|---|---|---|---|---|
| Input Voltage | | | +14 to +16 | +11 to +13 | +14 to +16 | +11 to +13 | V |
| Input Current at Maximum | with no load | Typ. | 120 | 100 | 120 | 100 | mA |
| Output Voltage | 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 |
| Input Regulation against ± 1 V Input Change | | Typ. | ±0.01 | ±0.03 | ±0.01 | ±0.03 | % |
| Load Regulation against 0 % to 100 % Load Change | | Typ. | ±0.03 | | | | % |
| Ripple Noise (p-p) | | Typ. | 0.003 | | | | % |
| Output Voltage Controlling Modes | | | By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ) | | | | — |
| Controlling Voltage Input Impedance | | Typ. | 110 | | 97 | | kΩ |
| Output Voltage Setting | | | (Controlling voltage × (-400)) ± 1 % | | (Controlling voltage × (+400)) ± 1 % | | V |
| Output Voltage Rise Time (0 % → 99 %) | | Typ. | 150 | | | | ms |
| Temperature Coefficient | | Typ. | ±0.01 | | | | %/°C |
| Operating Ambient Temperature / Humidity | | | 0 to +40 / 85 | | | | °C / % |
| Storage Temperature / Humidity | | | -20 to +60 / 90 | | | | °C / % |
| Weight | | | 100 | | | | g |
| Protective Functions | | | Units protected against reversed power input, reversed / excessive controlling voltage input, continuous overloading / short circuit in output | | | | — |

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# C9619 SERIES

Figure 1: Output Voltage Controlling




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

Figure 2: Output Voltage Controlling Characteristics

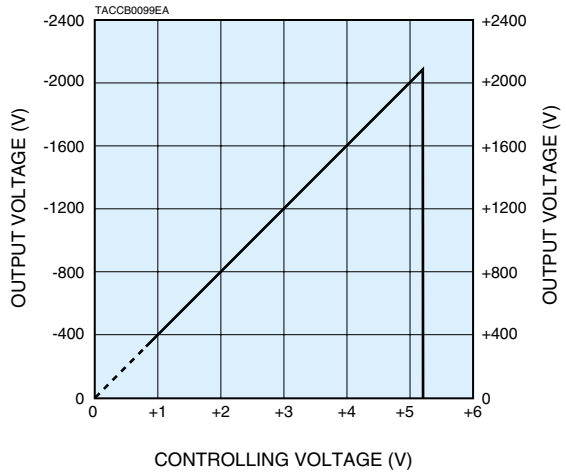
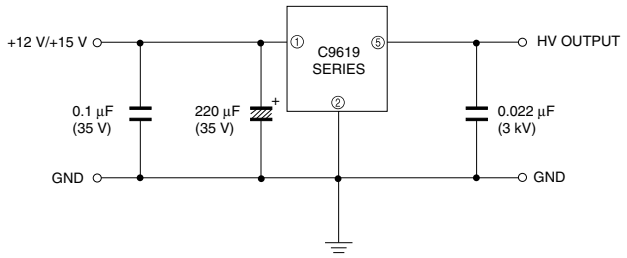


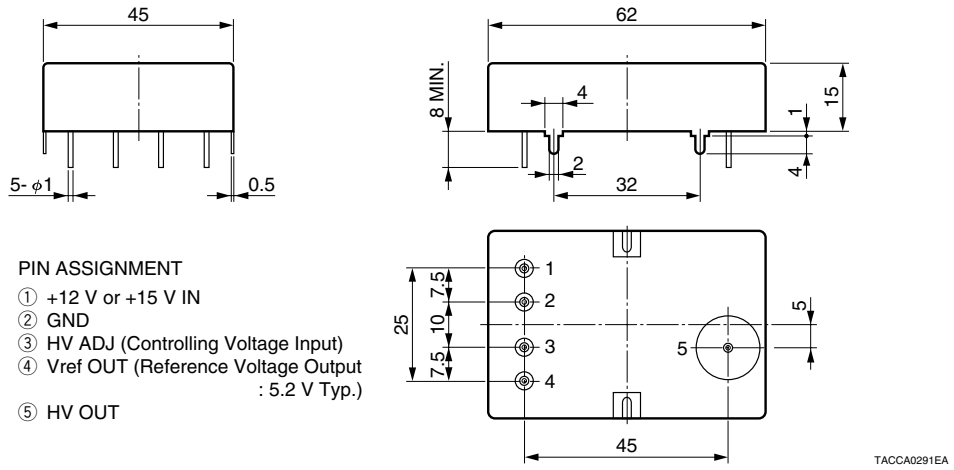

Figure 3: Example of Ripple Noise Reduction Circuit




*The ripple noise can be reduced to approx. 1/10 by adding capacitors as illustrated above.

TACCC0140EA

Figure 4: Dimensional Outline (Unit: mm)




PIN ASSIGNMENT
① +12 V or +15 V IN
② GND
③ HV ADJ (Controlling Voltage Input)
④ Vref OUT (Reference Voltage Output : 5.2 V Typ.)
⑤ HV OUT


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