

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

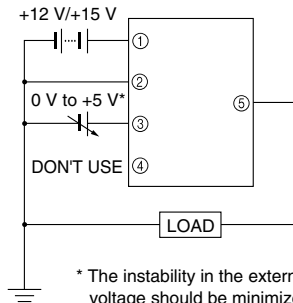
| Parameter | | | C9619 | C9619-01 | C9619-50 | C9619-51 | Unit | |
|---|----------------|------|--|----------|---------------|----------|---------------------------|------|
| Input Voltage | | | +15 ± 1 | +12 ± 1 | +15 ± 1 | +12 ± 1 | V | |
| Input Current ^(A) | with no load | Typ. | 120 | 100 | 120 | 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 ^{(A)(B)} | | | Typ. | ±0.01 | ±0.03 | ±0.01 | ±0.03 | % |
| Load Regulation Against 0 % to 100 % Load Change ^(A) | | Typ. | ±0.03 | | | | % | |
| Ripple / Noise (p-p) ^{(A)(B)} | | | 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 %) ^{(A)(B)} | | | Typ. | | | | 150 | ms |
| Temperature Coefficient ^{(A)(B)} | | | Typ. | | | | ±0.01 | %/°C |
| Operating Ambient Temperature ^{(A)(B)} | | | | | | | 0 to +40 | °C |
| Operating Ambient Humidity ^(C) | | | | | | | Below 85 | % |
| Storage Temperature | | | | | | | -20 to +60 | °C |
| Storage Humidity ^(C) | | | | | | | 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 | | | | — | |

^(A)At maximum output voltage. ^(B)At maximum output current. ^(C)No condensation

HIGH VOLTAGE POWER SUPPLY C9619 SERIES

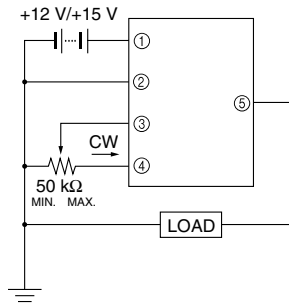
Figure 1: Connection Diagrams

● 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

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Figure 2: Output Voltage Controlling Characteristic

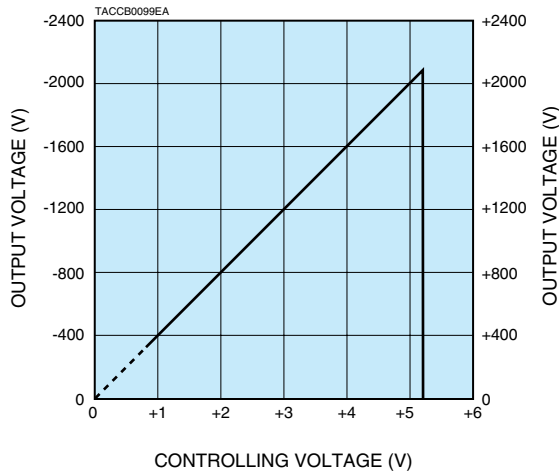
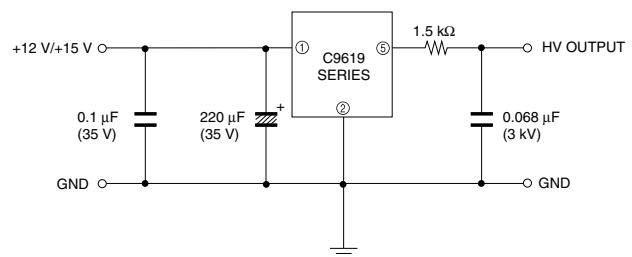


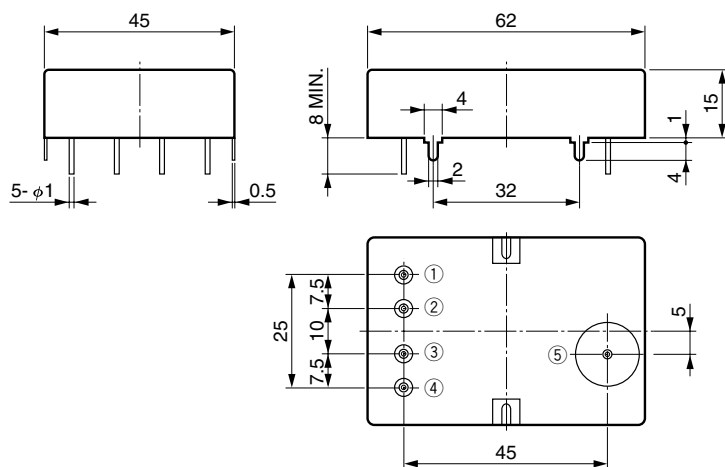
Figure 3: Example of Ripple Noise Reduction Circuit



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

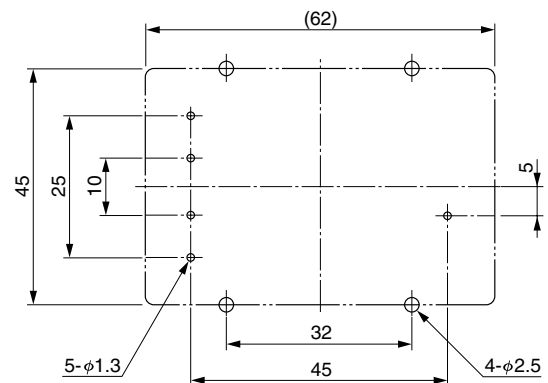
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Figure 4: Dimensional Outline (Unit: mm)



TACCA0291EB

Drilling Data for PC Board (Soldering Face)



TACCA0317EA

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TACC1039E02

DEC. 2012 IP