

HIGH VOLTAGE POWER SUPPLY C9619 SERIES

The C9619 series is a compact PC-board mountable high voltage power supply module, 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



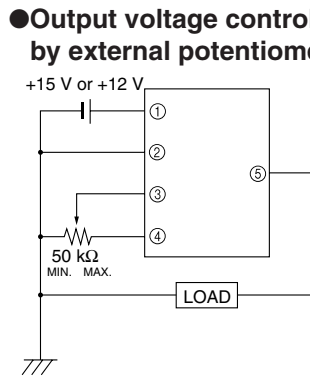
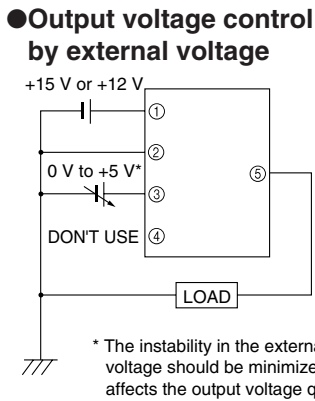
SPECIFICATIONS

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		%
Load regulation against 0 % to 100 % load change ^(A)		Typ.		±0.01		%
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)}		Typ.		0 to +40		°C
Operating ambient humidity ^(C)		Typ.		Below 85		%
Storage temperature		Typ.		-20 to +60		°C
Storage humidity ^(C)		Typ.		Below 90		%
Weight		Typ.		100		g
Protective functions		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

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Figure 1: Connection diagrams



PIN ASSIGNMENT
 ① Vcc IN +15 V or +12 V
 ② GND (common)
 ③ Vcont IN
 ④ Vref OUT +5.2 V Typ.
 ⑤ HV OUT

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Figure 2: Output voltage controlling characteristic

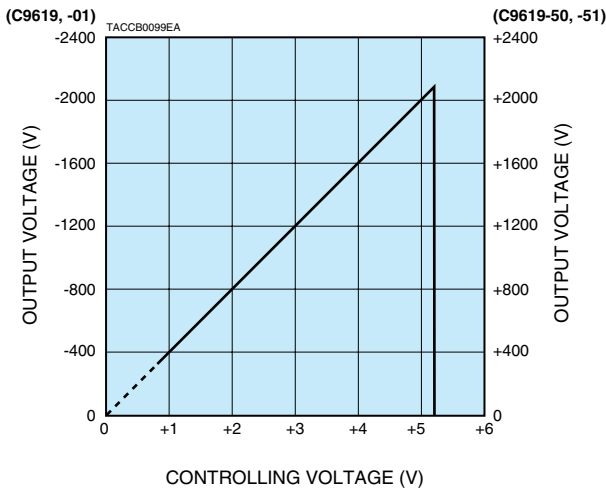
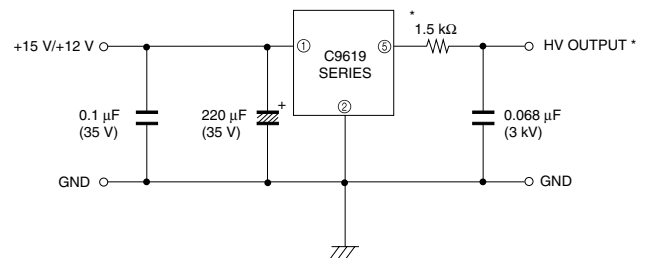


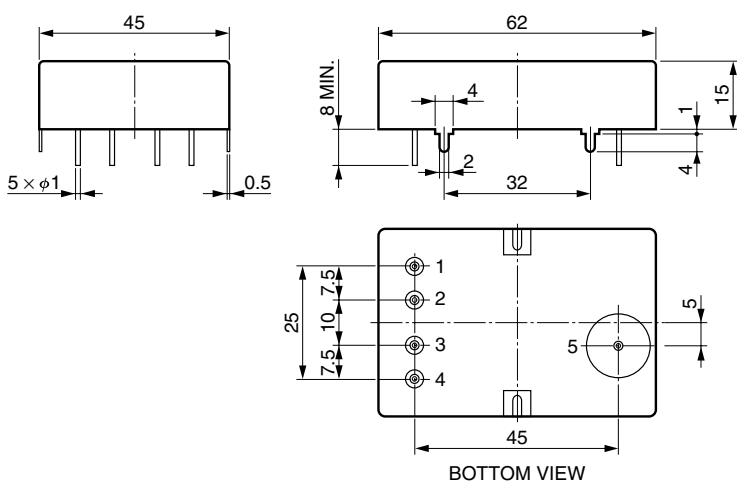
Figure 3: Example of ripple noise reduction circuit



The ripple noise can be reduced to approx. 1/3 by adding capacitors as illustrated above.
 * Output voltage is dropped by adding the filter resistor (1.5 kΩ × output current).

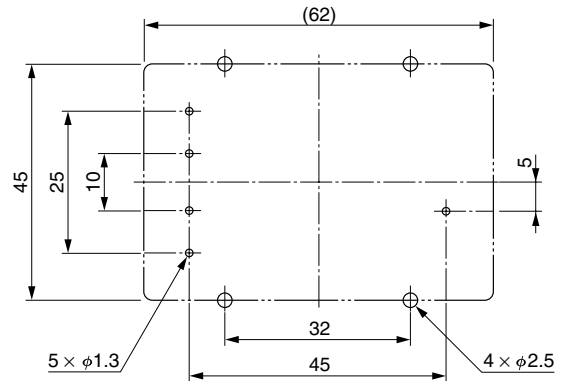
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Figure 4: Dimensional outline (Unit: mm)



TACCA0291EB

**Drilling data for PC board
(Soldering face)**



TACCA0317EB

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TACC1039E03
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