

The C11784 series is a compact PC-board mountable high voltage power supply module, especially designed for photomultiplier tubes. The design of high current output can offer to drive multiple photomultiplier tubes.

FEATURES

- Compact and Light Weight
- High Reliability
- High Conversion Efficiency
- High Voltage and Current Monitor Output



SPECIFICATIONS

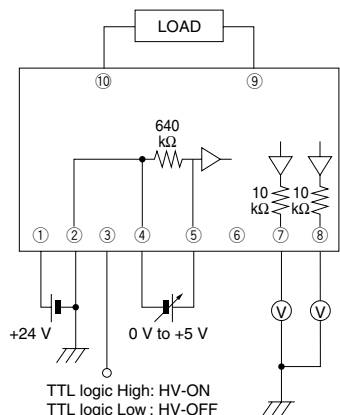
Parameter		C11784-12	C11784-52	Unit
Input Voltage		+24 ± 1.2		V
Input Current ^(A)	with no load	Typ. 55		mA
	with full load	Typ. 530		
Variable Output Voltage Range		0 to -2000	0 to +2000	V
Specification Guaranteed Output Voltage Range		-320 to -2000	+320 to +2000	V
Output Current		Max. 5		mA
Line Regulation Against ± 1.2 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. 50		mV
Output Voltage Control		By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ)		—
Controlling Voltage Input Impedance		Typ. 640		kΩ
Reference Voltage Output		Typ. +5.3		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. ±0.005		%/°C
High Voltage Monitor Output		0 to +5 (Output impedance 10 kΩ)		V
Current Monitor Output		0 to +5 (Output impedance 10 kΩ)		V
ON / OFF Input		TTL positive logic		—
ON / OFF Input Impedance		30		kΩ
Operating Ambient Temperature ^{(A)(B)}		0 to +50		°C
Operating Ambient Humidity ^(C)		Below 85		%
Storage Temperature		-20 to +60		°C
Storage Humidity ^(C)		Below 85		%
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

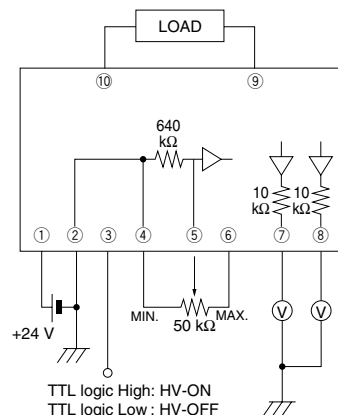
HIGH VOLTAGE POWER SUPPLY C11784 SERIES

Figure 1: Connection Diagrams

●By External Voltage



●By External Potentiometer



PIN ASSIGNMENT

- ① Vcc +24 V
- ② Vcc GND
- ③ ON / OFF IN
- ④ Vcont GND
- ⑤ Vcont
- ⑥ Vref +5.3 V Typ.
- ⑦ CURRENT MONITOR OUT
- ⑧ HV MONITOR OUT
- ⑨ HV GND
- ⑩ HV OUT

* In the case of an open state at pin ③, the module will have no high voltage output. If you don't use HV-ON / OFF function at pin ③, you can make the module work by connecting a 10 kΩ resistor between pin ③ and pin ⑥.

TACCC0158EA

Figure 2: Output Voltage Controlling Characteristic

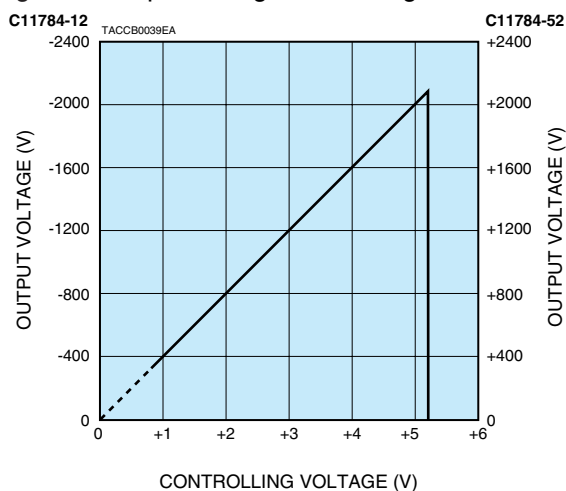
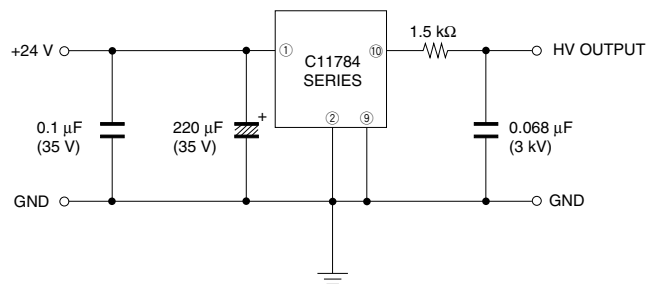


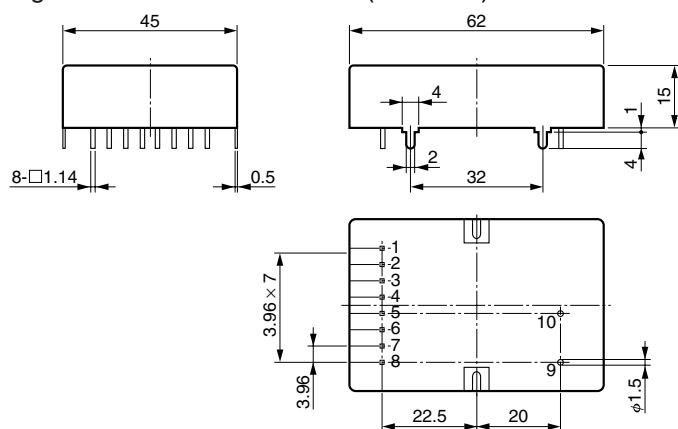
Figure 3: Example of Ripple / Noise Reduction Circuit



*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)



PIN ASSIGNMENT

- ① Vcc +24 V
- ② Vcc GND
- ③ ON / OFF IN
- ④ Vcont GND
- ⑤ Vcont
- ⑥ Vref +5.3 V Typ.
- ⑦ CURRENT MONITOR OUT
- ⑧ HV MONITOR OUT
- ⑨ HV GND
- ⑩ HV OUT

* The housing is internally connected to pin ②.

TACCA0315EB

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