

The C11152 series is a compact PC-board mountable high voltage power supply, especially designed for photo-multiplier tubes. The design offers better performance. The C11152 and C11152-01 output negative polarity and the C11152-50 and C11152-51 output positive polarity high voltage.



FEATURES

- Low Ripple / Noise
- Compact and Lightweight
- High Stability
- High Voltage Monitor Output
- Ample Protective and Fail-safe Functions

SPECIFICATIONS

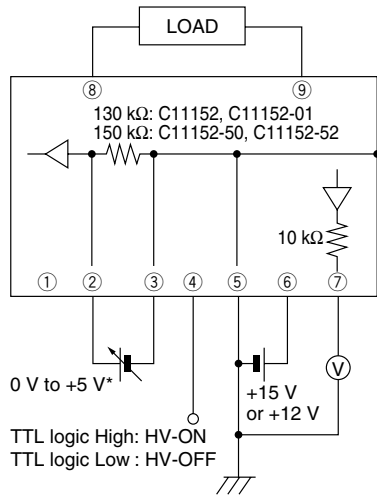
Parameter		C11152	C11152-01	C11152-50	C11152-51	Unit	
Input Voltage Range		+15 ± 1	+12 ± 0.5	+15 ± 1	+12 ± 0.5	V	
Input Current ^(A)	Typ.	with no load	45	50	45	50	mA
		with full load	180	220	180	220	
Variable Output Voltage Range		0 to -1500		0 to +1500		V	
Specification Guaranteed Output Voltage Range		-240 to -1500		+240 to +1500		V	
Output Current		Max.		1		mA	
Line Regulation Against ±1 V or ±0.5 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.		5 (>5 kHz), 8 (≤5 kHz)		mV p-p	
Output Voltage Control		By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ ± 2.5 kΩ)				—	
Controlling Voltage Input Impedance		Typ.		130	150	kΩ	
Reference Voltage Output		Typ.		+5.2 (with 50 kΩ external potentiometer)		V	
Output Voltage Setting (Absolute Value)		Typ.		(Controlling voltage × 300) ± 0.5 %		V	
Output Voltage Rise Time (0 % → 99 %) ^{(A)(B)}		Typ.		120		ms	
Temperature Coefficient ^{(A)(B)}		Typ.		±0.005		% / °C	
High Voltage Monitor Output				0 to +5 (Output impedance 10 kΩ)		V	
Inhibit Input				TTL logic level (Input impedance 30 kΩ)		—	
Operating Ambient Temperature ^{(A)(B)}				0 to +50		°C	
Operating Ambient Humidity ^(C)				Below 80		%	
Storage Temperature				-20 to +60		°C	
Storage Humidity ^(C)				Below 80		%	
Weight				38		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

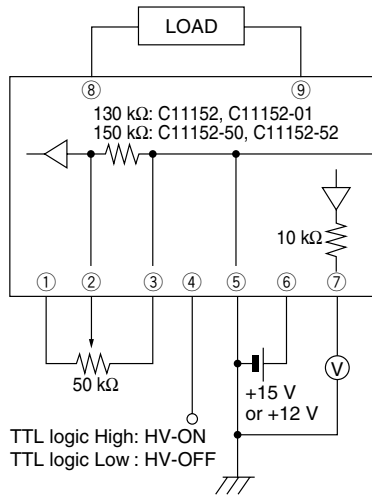
HIGH VOLTAGE POWER SUPPLY C11152

Figure 1: Connection Diagrams

● **OUTPUT VOLTAGE CONTROL BY EXTERNAL VOLTAGE**



● **OUTPUT VOLTAGE CONTROL BY EXTERNAL POTENTIOMETER**



- PIN ASSIGNMENT**
- ① Vref (Reference Voltage Output)
 - ② HV ADJ (Controlling Voltage Input)
 - ③ GND (Controlling Voltage GND)**
 - ④ Inhibit Input
 - ⑤ GND (+15 V or +12 V GND)**
 - ⑥ +15 V or +12 V Input
 - ⑦ HV Monitor Output
 - ⑧ HV Output
 - ⑨ GND (HV Output GND)

* The instability in the external controlling voltage should be minimised as it directly affects the output voltage quality.
 ** Never connect the pin number 3 and 5 directly and externally.

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Figure 2: Output Voltage Controlling Characteristics

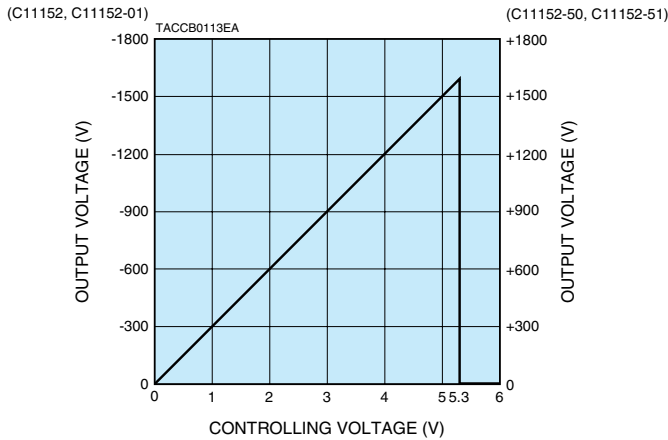
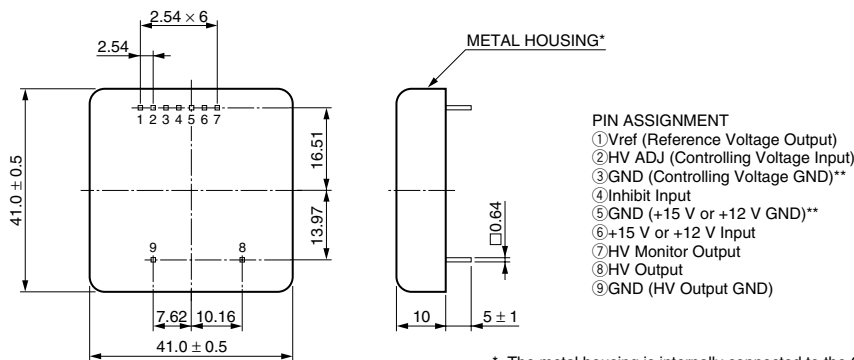


Figure 3: Dimensional Outline (Unit: mm)



* The metal housing is internally connected to the GND.
 ** Never connect the pin number 3 and 5 directly and externally.

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