

The C11152 series is a compact PC-board mountable high voltage power supply module, especially designed for photomultiplier tubes.

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
- Various protective and fail-safe functions



SPECIFICATIONS

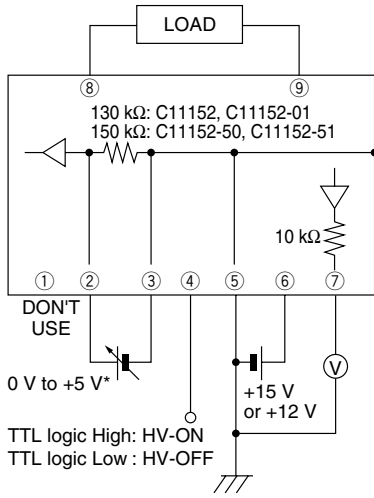
Parameter			C11152	C11152-01	C11152-50	C11152-51	Unit
Input voltage			+15 ± 1	+12 ± 0.5	+15 ± 1	+12 ± 0.5	V
Input current ^(A)	with no load	Typ.	45	50	45	50	mA
	with full load	Typ.	180	220	180	220	
Variable output voltage range			0 to -1500		0 to +1500		V
Specification guaranteed output voltage range			-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
Output voltage control			By external controlling voltage (0 V to +5 V) or external potentiometer (50 kΩ)				—
Controlling voltage input impedance		Typ.	130		150		kΩ
Reference voltage output		Typ.	+5.2				V
Output voltage setting (absolute value)		Typ.	Controlling voltage × 300				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
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 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

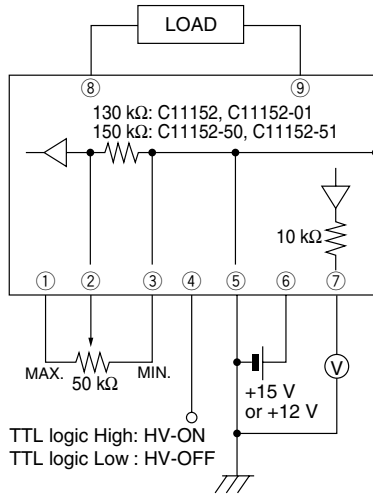
HIGH VOLTAGE POWER SUPPLY C11152

Figure 1: Connection diagrams

●OUTPUT VOLTAGE CONTROLLING BY EXTERNAL VOLTAGE



●OUTPUT VOLTAGE CONTROLLING BY EXTERNAL POTENTIOMETER



PIN ASSIGNMENT

- ① Vref +5.2 V Typ.
- ② Vcont
- ③ Vcont GND**
- ④ ON / OFF IN
- ⑤ GND**
- ⑥ Vcc +15 V or +12 V
- ⑦ HV MONITOR OUT
- ⑧ HV OUT
- ⑨ HV GND

* The instability in the external controlling voltage should be minimized 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

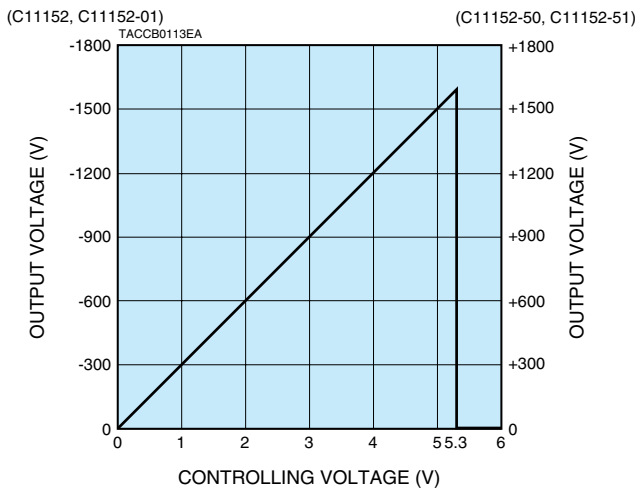


Figure 3: Overload characteristics

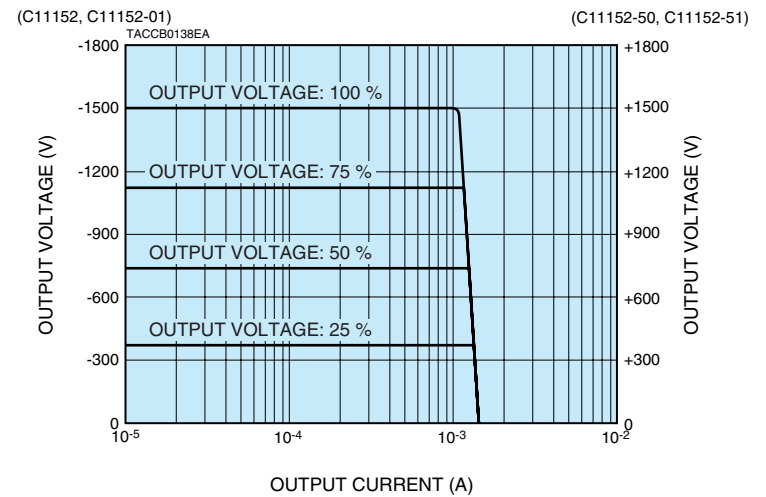
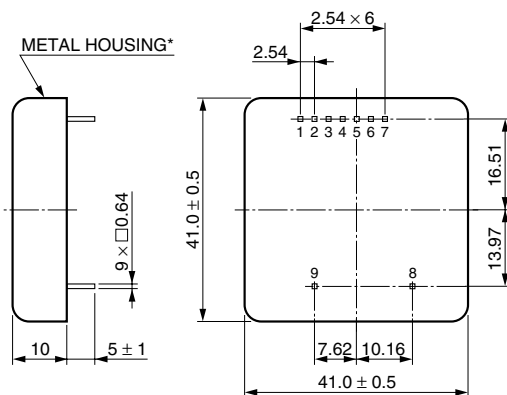


Figure 4: Dimensional outline (Unit: mm)



PIN ASSIGNMENT

- ① Vref +5.2 V Typ.
- ② Vcont
- ③ Vcont GND**
- ④ ON / OFF IN
- ⑤ GND**
- ⑥ Vcc +15 V or +12 V
- ⑦ HV MONITOR OUT
- ⑧ HV OUT
- ⑨ HV GND

* The metal housing is internally connected to the GND.

** Never connect the pin number 3 and 5 directly and externally.

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OCT. 2015. IP