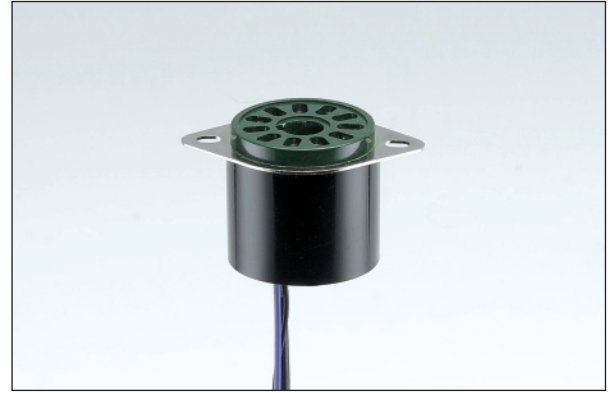


The E12788 is a D-type socket assembly designed for 28 mm diameter side-on photomultiplier tubes. It uses transistor circuit for the voltage divider circuit, making it ideal for use in high output applications.

FEATURES

- Active Voltage Divider Circuit
- Low Power Consumption, Low Heat Generation
Without incident light, power consumption is 1/15 of resistive divider type.
- Excellent Output Linearity
- High Output Current even at Low Supply Voltage



SPECIFICATIONS

Parameter		Description / Value	Unit
Max. Supply Voltage Between Case and Pins		1500	V
Supply Voltage Between GND and HV Cable		-200 to -1500	V
Voltage Divider Current (at Max. Supply Voltage)	at output signal current of 100 μ A	Max.	μ A
	when no incident light	Typ.	μ A
Power Consumption (at Max. Supply Voltage)	at output signal current of 100 μ A	Max.	mW
	when no incident light	Typ.	mW
Insulation Resistance between Case and Pins		Min.	1×10^{11}
Leakage Current in Signal (at -1000 V)		Max.	1×10^{-10}
Linear Output in DC Mode (at -1000 V) [Ⓐ]		Min.	100
Signal Output [Ⓑ]		DC / Pulse	—
Operating Ambient Temperature [Ⓒ]		0 to +50	$^{\circ}$ C
Storage Temperature [Ⓒ]		-15 to +60	$^{\circ}$ C
Weight		41.8	g

NOTE: [Ⓐ]The current at which output of photomultiplier tube deviates by $\pm 2\%$ from the linear (Refer to Figure 1)

[Ⓑ]This divider circuit supports a higher current than previous models, but do not exceed the maximum current specified for an individual PMT.

[Ⓒ]No condensation

Figure 1: DC Linearity

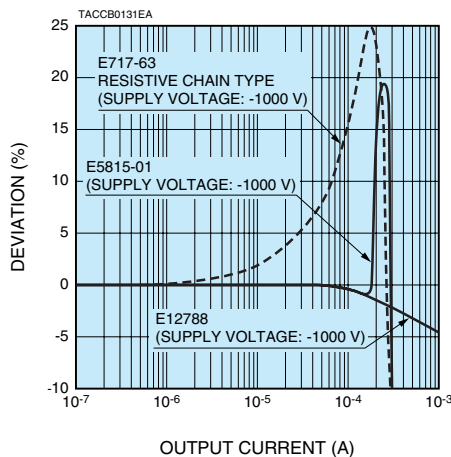


Figure 2: Maximum Output Under $\pm 2\%$ DC Linearity

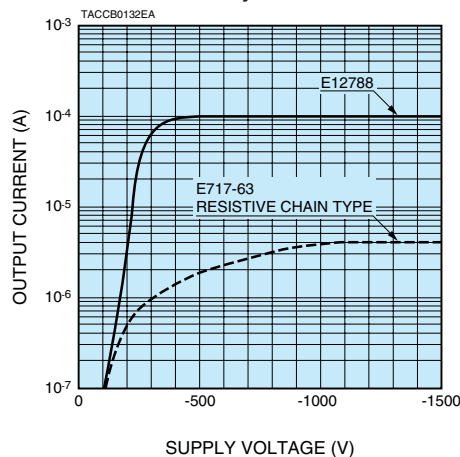
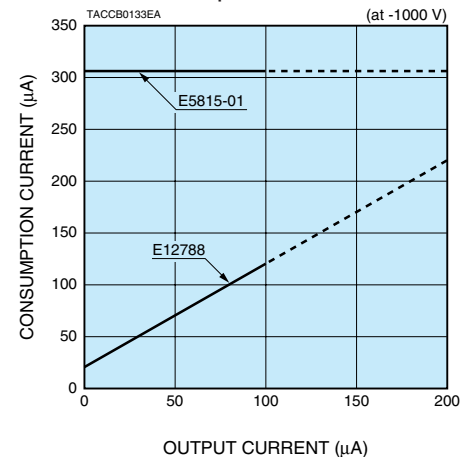
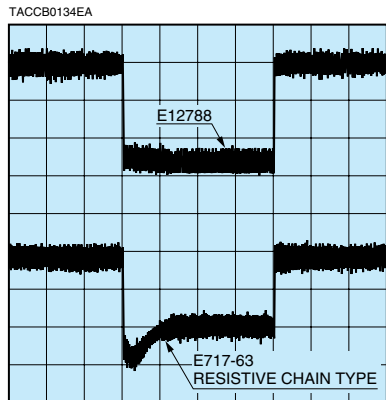


Figure 3: Output Current vs. Consumption Current



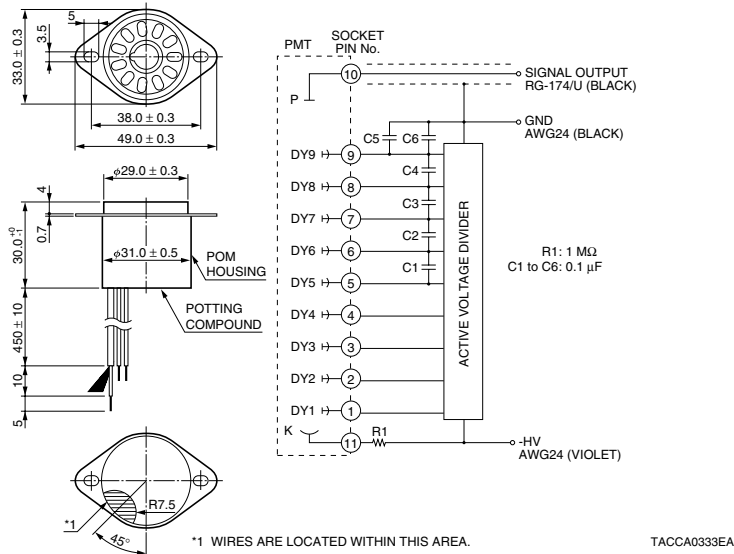
ACTIVE D TYPE SOCKET ASSEMBLY E12788

Figure 4: Output Pulse Waveform



POWER SUPPLY: C12789
SUPPLY VOLTAGE: -300 V
OUTPUT: 5 mVp-p (100 μ A)
PULSE WIDTH: 20 ms

Figure 5: Dimensional Outline and Circuit Diagram (Unit: mm)



*1 WIRES ARE LOCATED WITHIN THIS AREA.

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RELATED PRODUCT

HIGH VOLTAGE POWER SUPPLY MODULE C12789



The C12789 is a high-voltage power supply module specifically developed for the E12788.

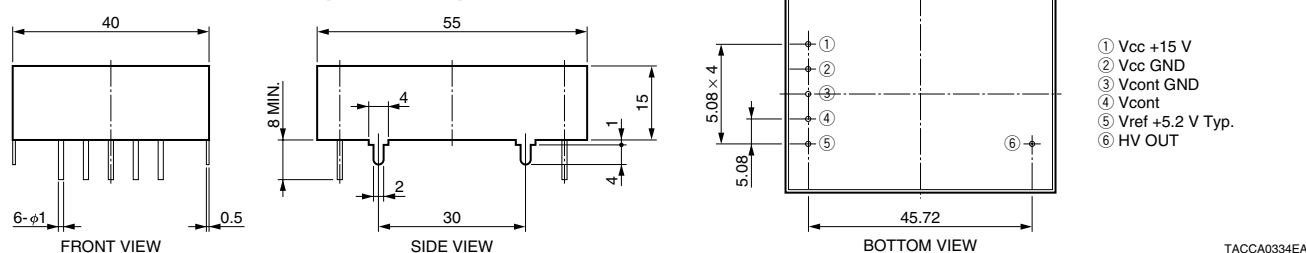
The E12788 exhibits its full performance when used with the C12789

SPECIFICATIONS

Parameter	Description / Value	Unit
Input Voltage	+15 ± 1	V
Input Current ^(A)	with full load	Max.
	160	mA
Variable Output Voltage Range	0 to -1000	V
Output Current	Max.	0.9
	0.9	mA
Line Regulation Against ±1 V Input Change ^{(A)(B)}	Typ.	±0.002
Load Regulation Against 0 % to 100 % Load Change ^(A)	Typ.	±0.03
Ripple / Noise (p-p) ^{(A)(B)}	Typ.	10 mV
Output Voltage Control	By external controlling voltage (0 V to +5 V) or external potentiometer (10 kΩ)	—
Controlling Voltage Input Impedance	Typ.	100
Reference Voltage Output	Typ.	+5.2
Output Voltage Setting (Absolute Value)	Typ.	Controlling voltage × 200
Output Voltage Rise Time (0 % → 99 %) ^{(A)(B)}	Typ.	500
Temperature Coefficient ^{(A)(B)}	Typ.	±0.005
		% / °C
Operating Ambient Temperature / Humidity ^(C)	0 °C to +50 °C / Below 80 %	—
Storage Temperature / Humidity ^(C)	-20 °C to +60 °C / Below 80 %	—
Weight	Typ.	77
		g

NOTE: (A) At maximum output voltage (B) At maximum output current (C) No condensation

Dimensional Outline (Unit: mm)



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