

The E13643 is a D-type socket assembly designed for TO-8 metal package 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 1/5 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	1100	V
Supply voltage between GND and HV cable	-200 to -1100	V
Voltage divider current (at Max. supply voltage)	at output signal current of 100 μ A	
	Max. when no incident light	163 μ A
	Typ.	63 μ A
Power consumption (at Max. supply voltage)	at output signal current of 100 μ A	
	Max. when no incident light	180 mW
	Typ.	70 mW
Insulation resistance between case and pins	Min. 1×10^{11}	Ω
Leakage current in signal (at -1000 V)	Max. 1×10^{-10}	A
Linear output in DC mode (at -1000 V) [Ⓐ]	Min. 100	μ A
Signal output [Ⓑ]	DC / Pulse	—
Operating ambient temperature [Ⓒ]	0 to +50	$^{\circ}$ C
Storage temperature [Ⓒ]	-15 to +60	$^{\circ}$ C
Weight	20	g

NOTE: [Ⓐ]The current at which output of photomultiplier tube deviates by 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

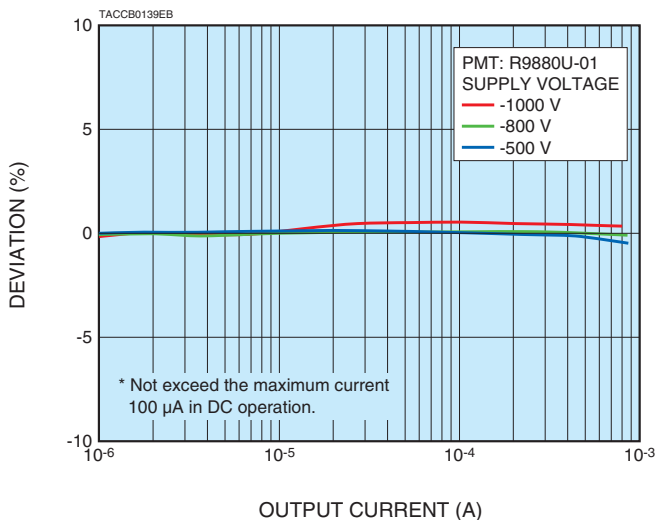
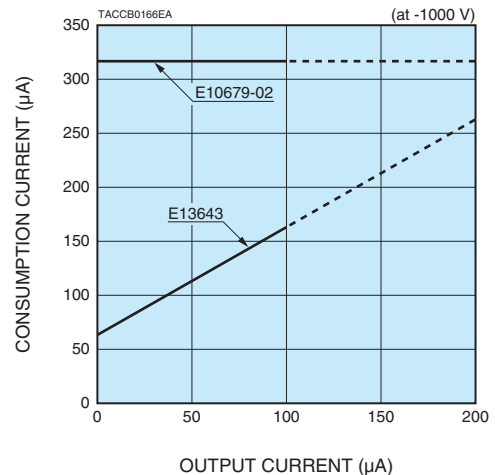
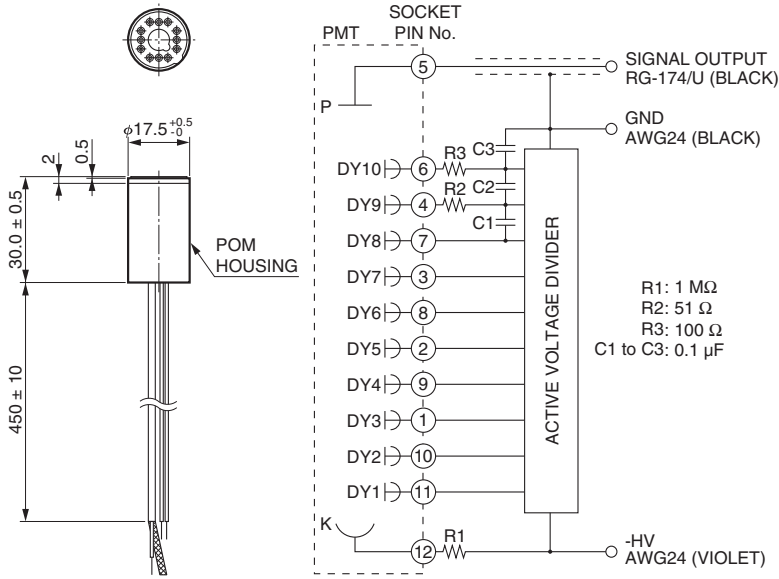


Figure 2: Output current vs. consumption current



HIGH LINEARITY ACTIVE D TYPE SOCKET ASSEMBLY E13643

Figure 3: Dimensional outline and circuit diagram (Unit: mm)



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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/E13643.

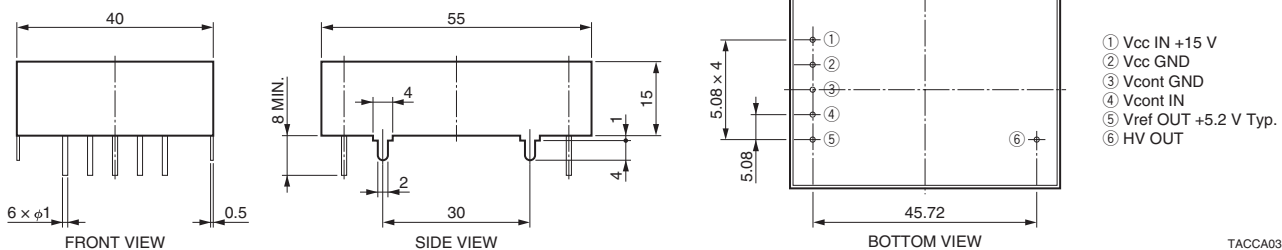
The E12788/E13643 exhibits its full performance when used with the C12789

SPECIFICATIONS

Parameter	Description / Value	Unit
Input voltage	+15 ± 1	V
Input current ^(A)	with full load Max.	mA
Variable output voltage range	0 to -1000	V
Output current	Max.	mA
Line regulation against ±1 V input change ^{(A)(B)}	Typ.	%
Load regulation against 0 % to 100 % load change ^(A)	Typ.	%
Ripple / noise (p-p) ^{(A)(B)}	Typ.	mV
Output voltage control	By external controlling voltage (0 V to +5 V) or external potentiometer (10 kΩ)	—
Controlling voltage input impedance	Typ.	kΩ
Reference voltage output	Typ.	V
Output voltage setting (absolute value)	Typ.	Controlling voltage × 200
Output voltage rise time (0 % → 99 %) ^{(A)(B)}	Typ.	ms
Temperature coefficient ^{(A)(B)}	Typ.	% / °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.	g

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

Dimensional outline (Unit: mm)



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HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

HAMAMATSU PHOTONICS K.K., Electron Tube Division

314-5, Shimokanzo, Iwata City, Shizuoka Pref., 438-0193, Japan, Telephone: (81)539/62-5248, Fax: (81)539/62-2205

U.S.A.: Hamamatsu Corporation: 360 Foothill Road, Bridgewater, N.J. 08807-0910, U.S.A., Telephone: (1)908-231-0960, Fax: (1)908-231-1218 E-mail: usa@hamamatsu.com

Germany: Hamamatsu Photonics Deutschland GmbH: Arzbergerstr. 10, D-82211 Herrsching am Ammersee, Germany, Telephone: (49)8152-375-0, Fax: (49)8152-2658 E-mail: info@hamamatsu.de

France: Hamamatsu Photonics France S.A.R.L.: 19, Rue du Saule Trapu, Parc du Moulin de Massy, 91882 Massy Cedex, France, Telephone: (33)1 69 53 71 00, Fax: (33)1 69 53 71 10 E-mail: infos@hamamatsu.fr

United Kingdom: Hamamatsu Photonics UK Limited: 2 Howard Court, 10 Tewin Road, Welwyn Garden City, Hertfordshire AL7 1BW, United Kingdom, Telephone: (44)1707-294888, Fax: (44)1707-325777 E-mail: info@hamamatsu.co.uk

North Europe: Hamamatsu Photonics Norden AB: Torshamnsgatan 35 SE-164 40 Kista, Sweden, Telephone: (46)8-509-031-00, Fax: (46)8-509-031-01 E-mail: info@hamamatsu.se

Italy: Hamamatsu Photonics Italia S.r.l.: Strada della Moia, 1 int. 6, 20020 Arese (Milano), Italy, Telephone: (39)02-93581733, Fax: (39)02-93581741 E-mail: info@hamamatsu.it

China: Hamamatsu Photonics (China) Co., Ltd.: B1201 Jiaming Center, No.27 Dongsanhuan Beilu, Chaoyang District, Beijing 100020, China, Telephone: (86)10-6586-6006, Fax: (86)10-6586-2866 E-mail: hpc@hamamatsu.com.cn

Taiwan: Hamamatsu Photonics Taiwan Co., Ltd.: 8F-3, No.158, Section2, Gongdao 5th Road, East District, Hsinchu, 300, Taiwan R.O.C. Telephone: (886)03-659-0080, Fax: (886)07-811-7238 E-mail: info@tw.hpk.co.jp

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