HAMAMATSU

PRELIMINARY DATA
APR. 2000

# D-TYPE ACTIVE MODULE
# E5771 SERIES

The E5771 Series is new voltage divider to operate a photomultiplier. The compact configuration is convenient to attach directly on tracing circuit board. Additionally, The built-in circuit utilizes transistor devices in the final three stages, so that the E5771 Series can give superior DC linearity characteristic under a low power consumption.

## MAXIMUM RATINGS

| Parameter | E5771 | E5771-01 | Unit |
|---|---|---|---|
| Supply Voltage between Case and Pins | 2000 | 1500 | Vdc |
| Supply Voltage between Pin#1 and #12 *b | 2000 | 1500 | Vdc |
| Divider Current between Pin#1 and #12 *b | 0.36 | 0.29 | mA |
| Power Consumption Between Pin#1 and #12 *b | 0.72 (at 2000 Vdc) | 0.44 (at 1500 Vdc) | W |
| Operating Temperature | -20 to +50 | | °C |

## CHARACTERISTICS

| Parameter | E5771 | E5771-01 | Unit |
|---|---|---|---|
| Applicable PMT | 10 Stages Dynode type *a | 28mm Side-on type | — |
| Insulation Resistance between Case and Pins | $1 \times 10^{11}$ | | Ω (Min.) |
| Voltage Distribution Ratio among Pin#1 to #12 *b | 1: 1: 1: ····· : 1: 1: 1 | | — |
| Maximum Linear Output in DC Mode | 100 (Typ.) | | μA |

*a: R1166, R1617, R580, R980, 6199, R3886, R1924, R5611-01, R5800, etc.
*b: E5771-01: between Pin#1 and #11.

Figure 1: DC Linearity of E5771

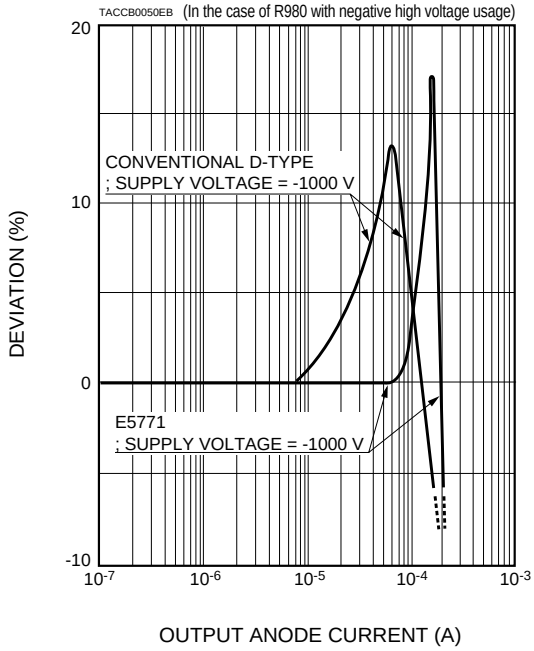


Figure 2: DC Linearity of E5771-01

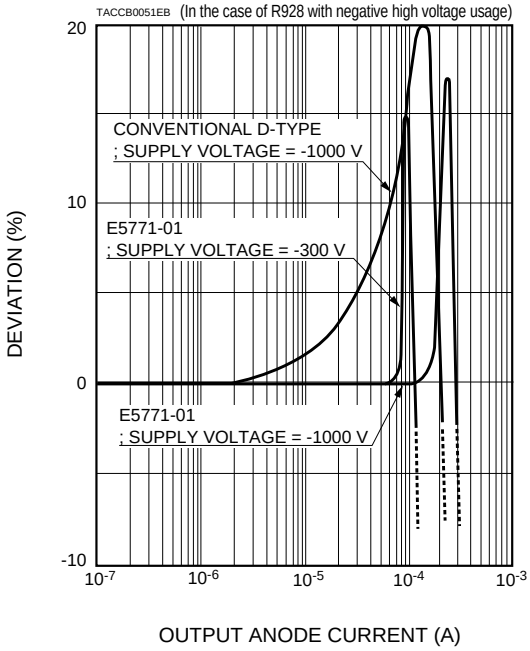

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Figure 3: Maximum Output under ±1 %
DC Linearity of E5771

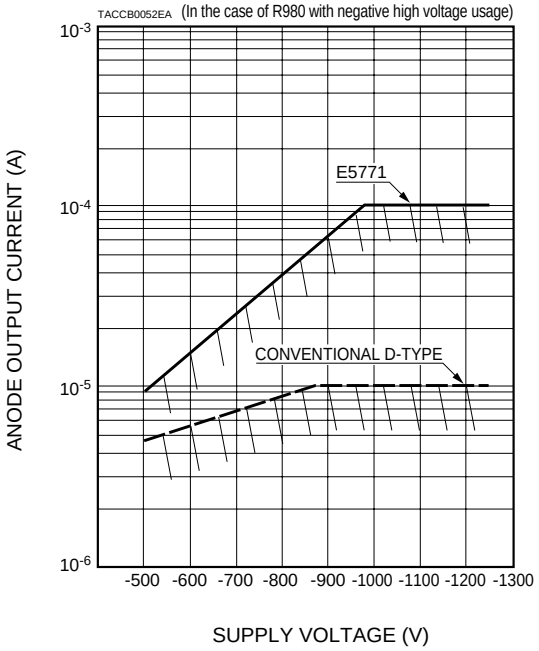


Figure 4: Maximum Output under ±1 %
DC Linearity of E5771-01

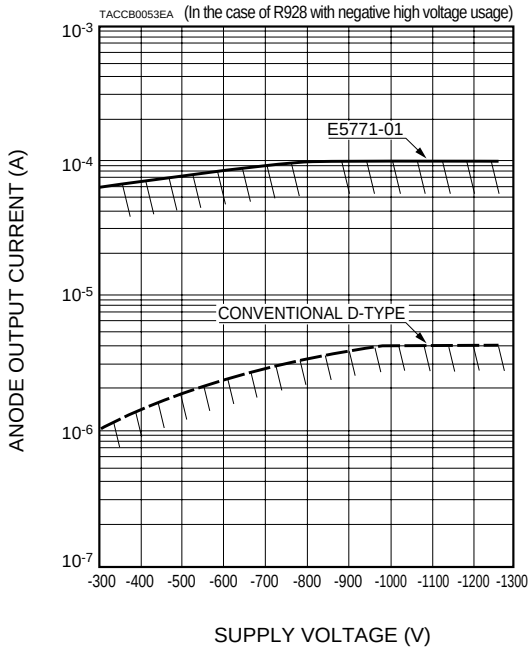


Figure 5: Dimensional Outline and Circuit Diagram of E5771 (Unit: mm)

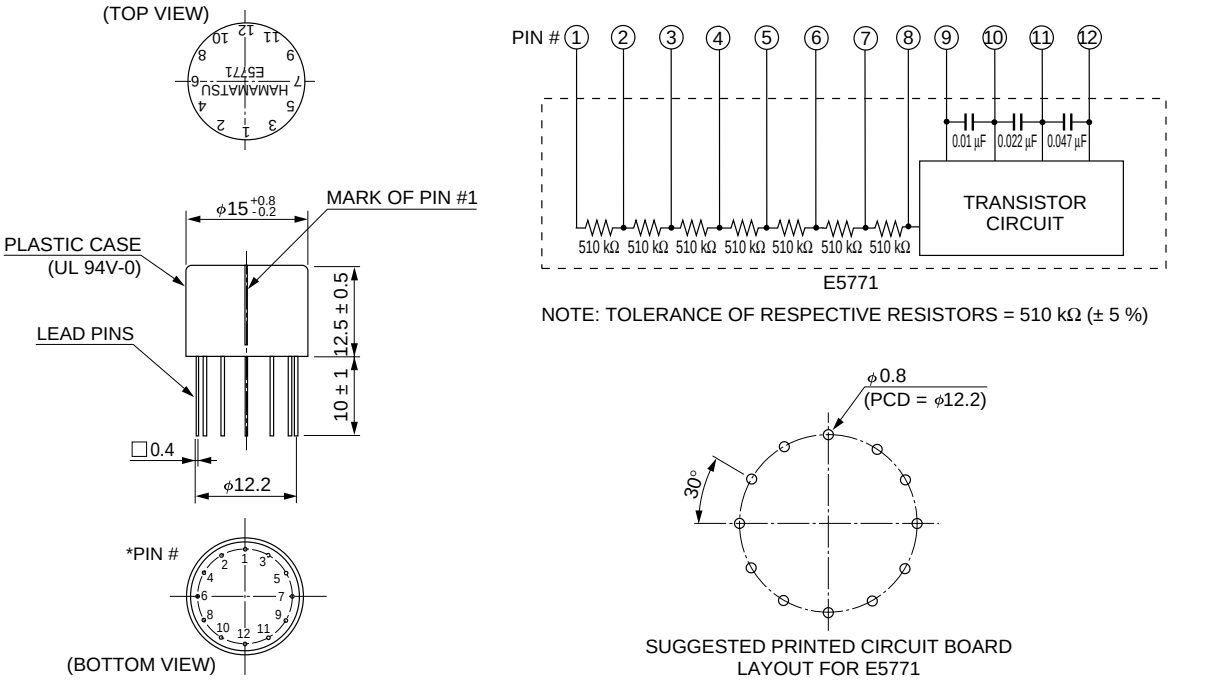


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Figure 6: Dimensional Outline and Circuit Diagram of E5771-01 (Unit: mm)

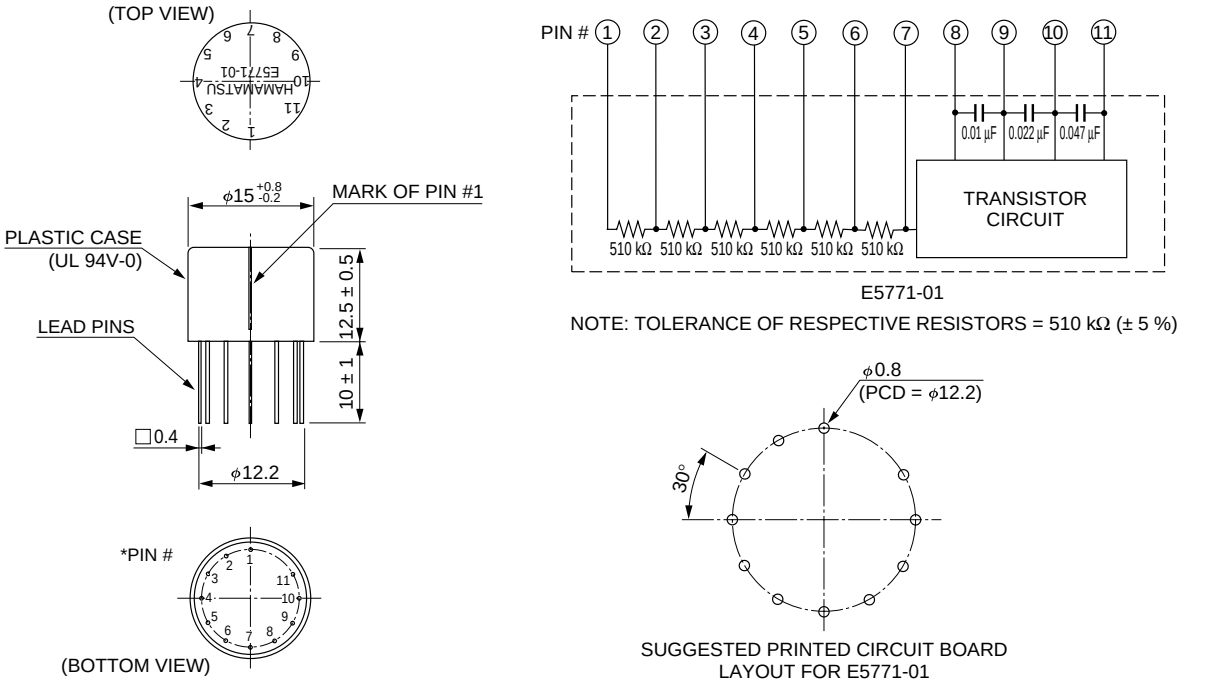


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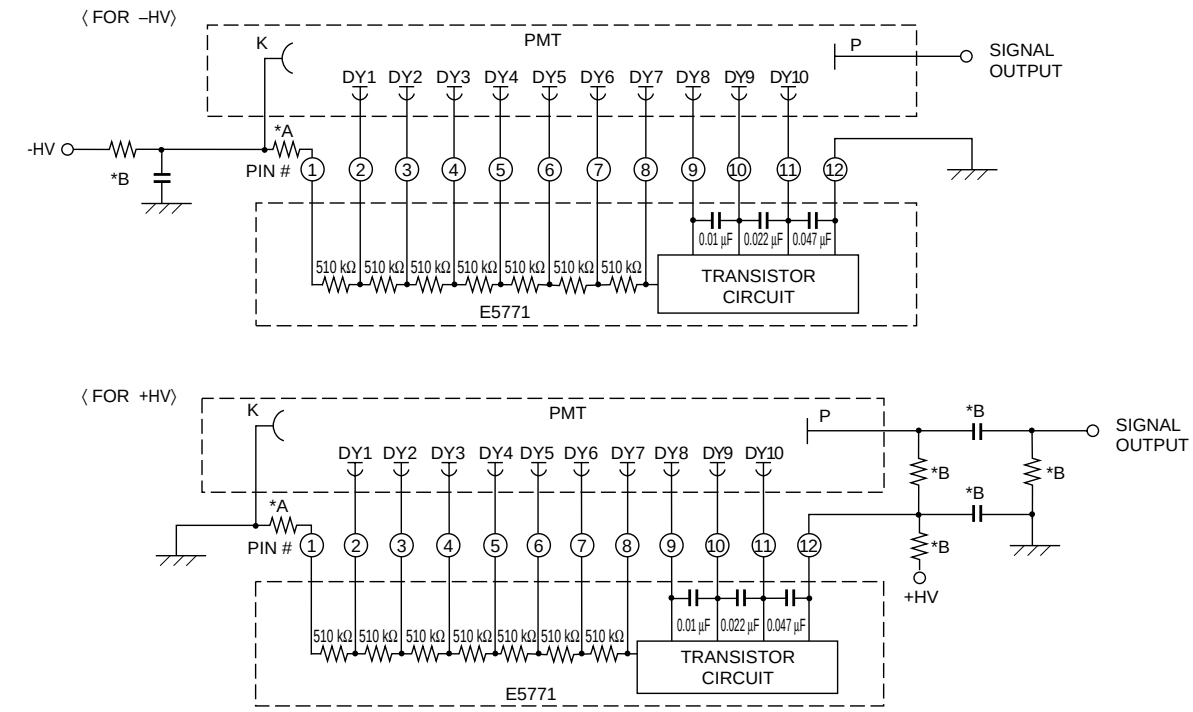
Figure 7: The Example of Completed Divider Circuit with E5771




NOTES *A/ *B; To be installed outside E5771

To be recommend as follows about the *A resistor

1) In the case of R1166, R1617: 240 kΩ ± 5%, (150 V, 1/8 W)
2) In the case of R580, R980, 6199, R3886: 510 kΩ ± 5%, (200 V, 1/8 W)
3) In the case of R1924, R5611-01: 1 MΩ ± 5 %, (250 V, 1/8 W)
4) In the case of R5800: 1 MΩ ± 5 %, (350 V, 1/4 W)

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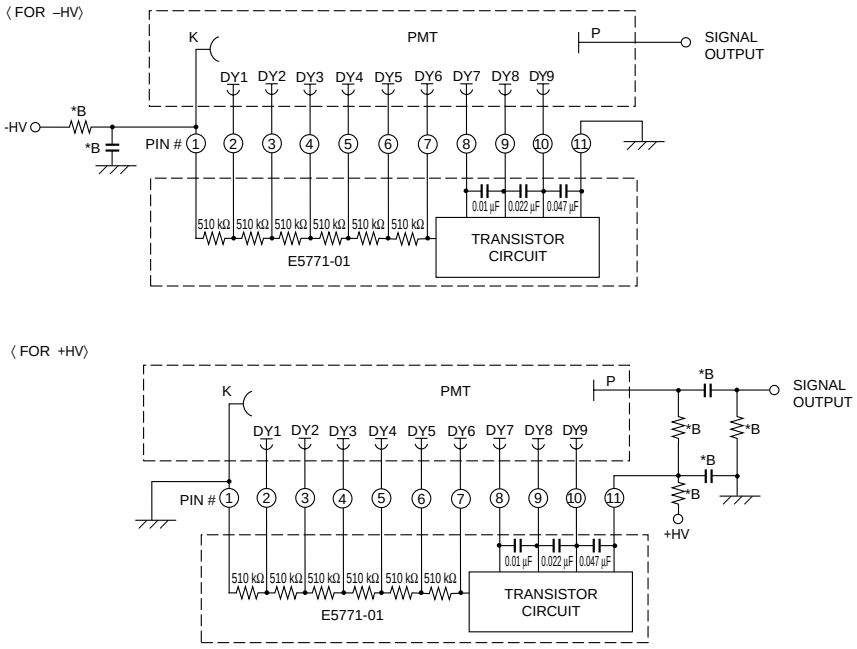
Figure 8: The Example of Completed Divider Circuit with E5771-01




NOTES *B; To be installed outside E5771-01

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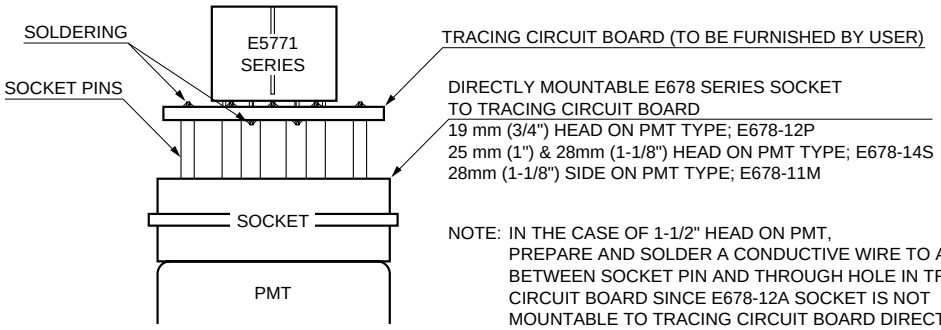
Figure 9: The Example of How to Use

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## CAUTION

- When getting output anode current over operating area shown at Figure 3 and Figure 4, there may be a sudden change in output. It would be caused by divider current but not lead E5771 Series to break down.
- When supplying high voltage with opposite polarity by mis-handling in connection with E5771 Series mounted on a printed circuit board, it might lead an internal damage in E5771 Series. Therefore, please take care to see the polarity of high voltage and correct electro-connections before operation.
- Also, if short-circuit should be produced by mistake or something among pin#1 to #12 (E5771-01: pin#1 to #11) in operation, it may lead an internal Damage in E5771 Series.
- The specifications described herein are subject to change without notice.

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