

FEATURES

- Composed of Lead-free substances
- Can be operated under high pressure condition
- Custom design is also available to meet requirements for different shapes and numbers of channels

APPLICATIONS

- Mass spectrometers (Ion trap MS, QMS, etc.)



SPECIFICATIONS

GENERAL

| Parameter | Description / Value | Unit |
|-------------------------------|---------------------|------|
| Effective area | 6.6 × 7.0 | mm |
| Open area ratio | 85 | % |
| Resistance | 10 to 120 | MΩ |
| Operating ambient temperature | -30 to +120 | °C |
| Storage temperature | -80 to +50 | °C |
| Operating mode | Analog / Counting | — |
| Polarity of detected ions | Positive / Negative | — |

MAXIMUM RATINGS

| Parameter | Description / Value | Unit |
|---|---------------------|------|
| In-Out voltage | -3600 | V |
| Bake-Out temperature (at <5 mPa) | 350 | °C |
| Output current | 3 % of bias current | — |
| Operating pressure (to achieve gain 1.0 × 10 ⁶) | 0.1 | Pa |

CHARACTERISTICS

| Parameter | Min. | Typ. | Max. | Unit |
|--------------|------|-----------------------|------|-----------------|
| Bias current | 16.7 | 33 | 200 | μA |
| Gain | — | 3.5 × 10 ⁶ | — | — |
| Dark current | — | 0.5 | 1 | pA |
| Dark count | — | — | 2 | s ⁻¹ |
| Rise time | — | 2.1 | — | ns |

NOTE: Characteristics are measured with following conditions.

CEM In-supply voltage: -2100 V / CEM Out-supply voltage: -100 V / Operating pressure: 1.0 × 10⁻⁴ Pa

CERARION™ (CERAMIC CHANNEL ELECTRON MULTIPLIER) R14747

Figure 1: Typical gain

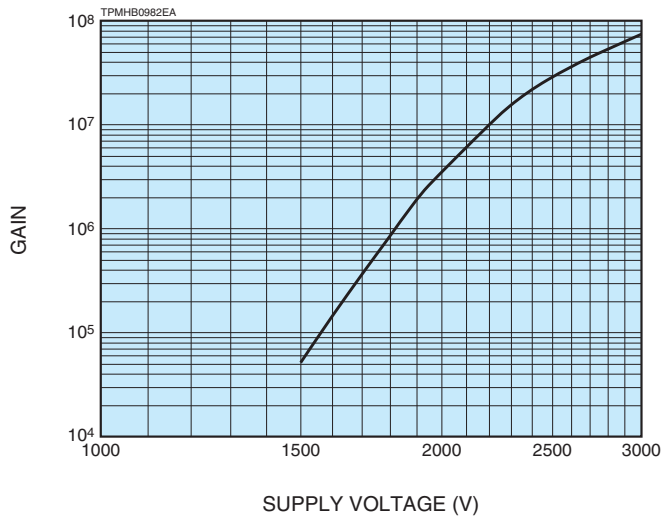


Figure 2: Typical time response

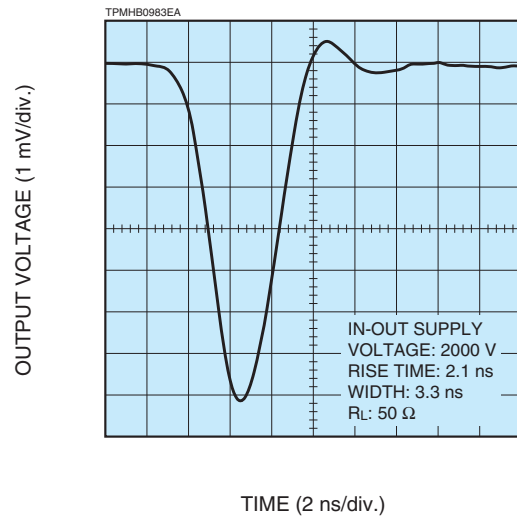
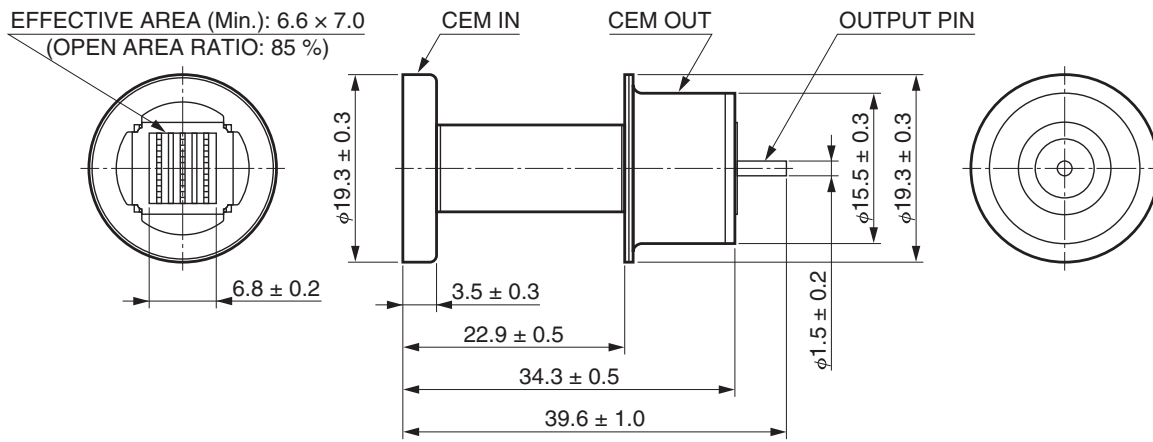


Figure 3: Dimensional outline (Unit:mm)



* CEM: Channel Electron Multiplier

TPMHA0643EB

* Customizations are also available, please consult us.

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