

### High-Speed Response MCP Assembly Ideal for High Resolution TOF-MS Detector Incorporates a Two-Stage MCP with 4 μm Channel Diameter

The F4655-13 MCP assembly is an ideal detector for high resolution TOF-MS (time-of-flight mass spectroscopy) because of a two-stage MCP with 4μm channel diameter. Our own advanced technology in optimizing MCP design allows obtaining an excellent output waveform with negligible ringing even when detecting very high-speed signals. The dimensions are exactly the same as the F4655-10 MCP assembly, ensuring a compact configuration and easy handling.



TMCPF0088

#### FEATURES

- Excellent Time Response
- 50 Ω Impedance Matching
- Compact and Lightweight

#### APPLICATION

- TOF-MS (Time-of-flight mass spectrometer)

#### SPECIFICATIONS

##### GENERAL

Parameter	Value	Unit
Assembly Outer Diameter	38.0	mm
Effective Diameter	14.5	mm
Maximum Height	31.9	mm
MCP Channel Diameter	4	μm
Number of MCP Stages	2	—

##### MAXIMUM RATINGS (at $1.3 \times 10^{-4}$ Pa)

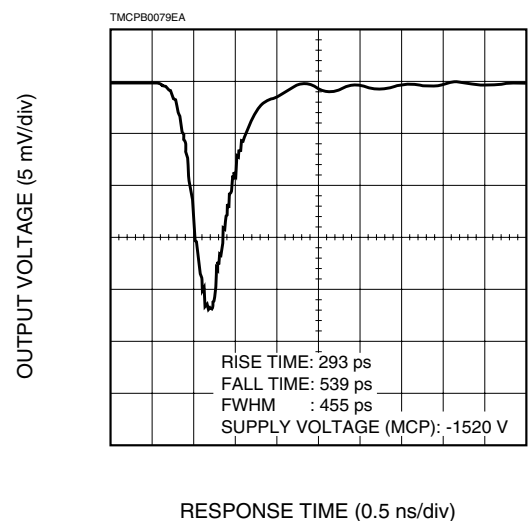
MCP Supply Voltage (In-Out)	2	kV
MCP-Out to Anode Voltage	0.5	kV
Electric Potential at Each Terminal	MCP-In: -2.5 MCP-Out: -0.5 Anode: GND	kV
Baking Temperature	—*	°C
Baking Time	—*	h
Baking Vacuum Condition	—*	Pa (Torr)

\* Baking cannot be performed.

##### ELECTRICAL CHARACTERISTICS (at $1.3 \times 10^{-4}$ Pa, $T_a = +25$ °C)

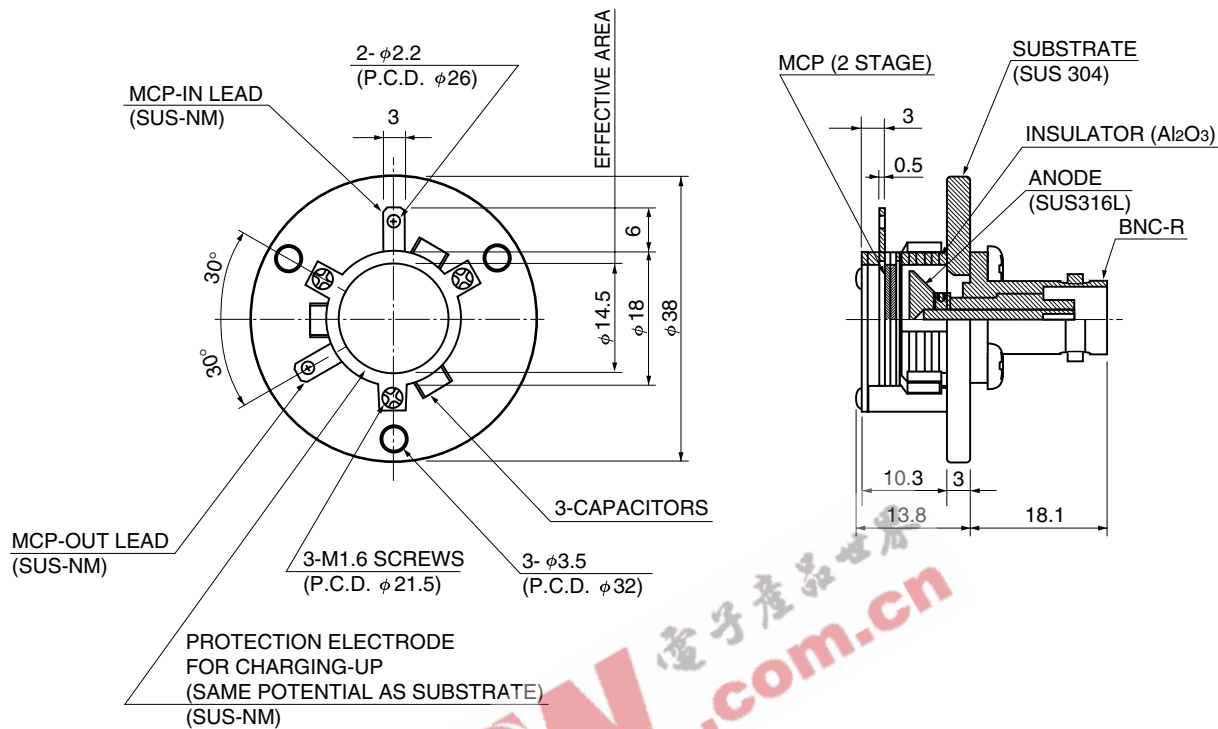
Gain at 2.0 kV	$1 \times 10^6$	—
Plate Resistance per MCP	10 to 100	MΩ
Dark Count at 2.0 kV	5	$s^{-1} \cdot cm^{-2}$

Figure 1: Typical Output Waveform



# MCP ASSEMBLY FOR HIGH RESOLUTION TOF-MS F4655-13

Figure 2: Dimensional Outlines (Unit: mm)



TMCPA0044EB

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