

C6438-01 is a wide bandwidth, DC to 50 MHz, amplifier. While providing the photomultiplier tube output current directly to C6438-01 input connector, it provides the voltage output signal in the conversion coefficient of 25 mV/1 μ A. It can be used as a wide bandwidth amplifier not only for a photomultiplier tube but also for other detectors.

FEATURES

- Wide Bandwidth: DC to 50 MHz
- Rise Time: 7 ns Typ.
- Gain: 54 ± 3 dB (Approx. 500 Times)
- Non-inverting Output
- Compact · Light weight

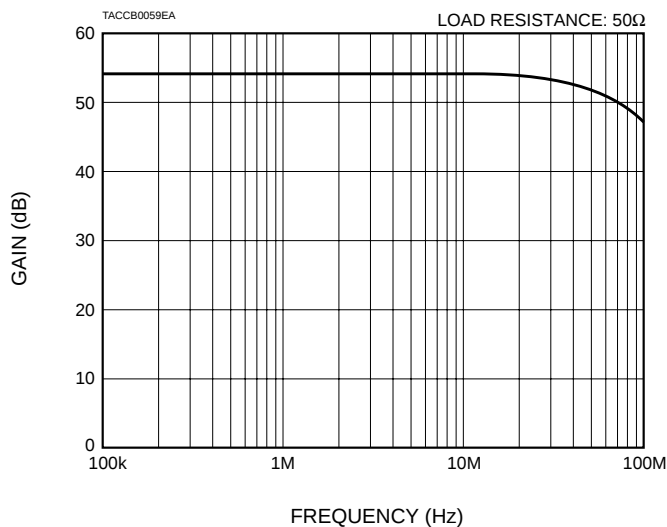
MAXIMUM RATINGS (Absolute Maximum Values)

Parameter	Description/Value
Input Voltage	± 6 Vdc
Operating Temperature	0 to +40 °C
Storage Temperature	-10 to +60 °C

SPECIFICATIONS

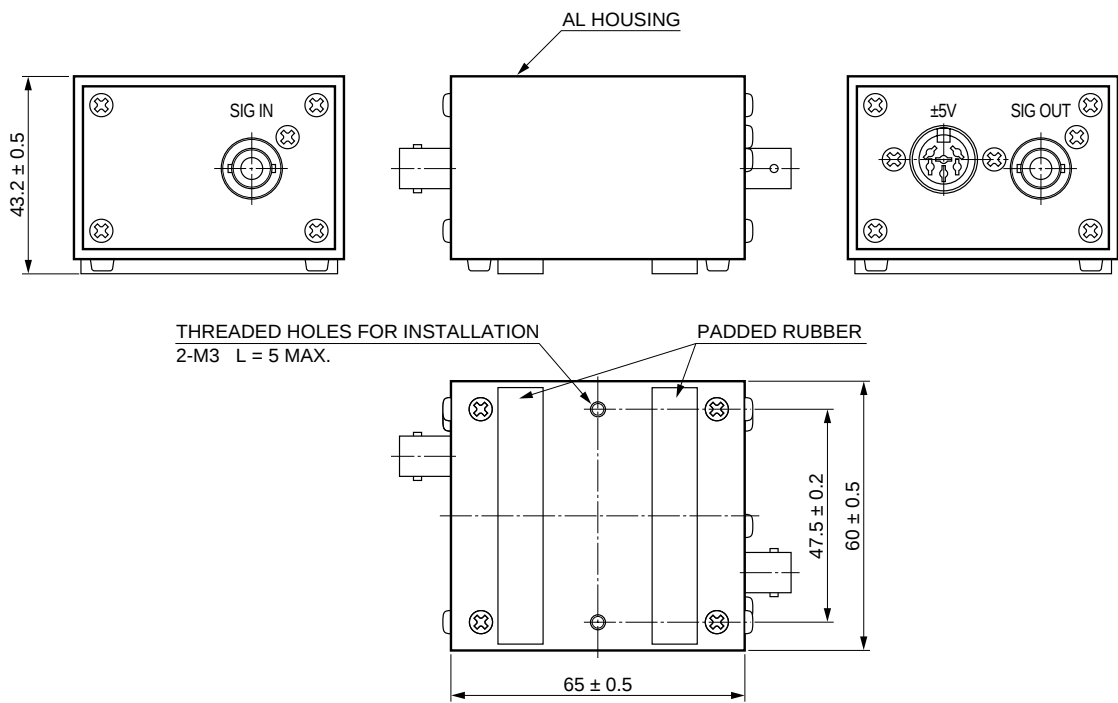
Parameter	Description/Value
Gain (Frequency: DC to 50 MHz, Load Resistance: 50 Ω)	54 ± 3 dB (Approx. 500 times)
Frequency Bandwidth (-3 dB)	DC to 50 MHz
Rise Time	7 ns Typ.
Input Polarity	Positive/Negative
Amplifying Method	Non-inverting Output
Input/Output Impedance	50 Ω
Maximum Output Voltage	Load Resistance: 1 M Ω 2.0 V Min. Load Resistance: 50 Ω 1.0 V Min.
Output Offset Voltage (Load Resistance: 50 Ω)	2 mV Typ.
Output Noise Voltage (Load Resistance: 50 Ω)	8 mV rms Max. (at 50 MHz)
Output Offset Drift (0 to +40 °C)	0.14 mV/°C
Input Voltage/Current	± 5 Vdc/ ± 30 mA Typ.
Weight	160 g

Figure 1: Gain vs. Frequency Characteristic



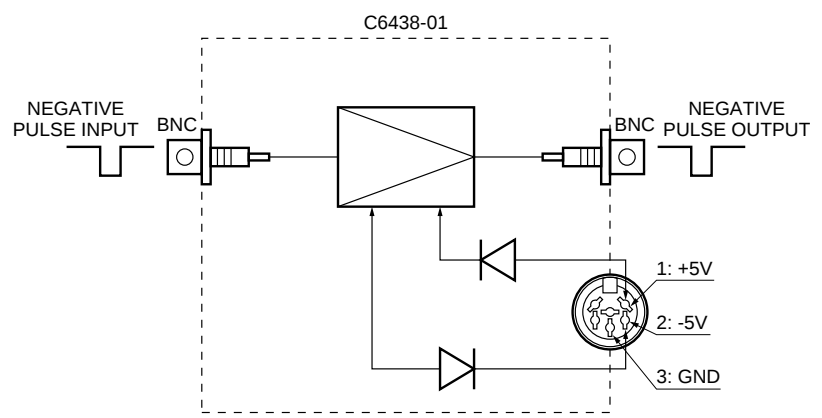
WIDE BANDWIDTH AMPLIFIER C6438-01

Figure 2: Dimensional Outline (Unit: mm)



TACCA0192EA

Figure 3: Internal Connection Diagram



TACCC0114EA

CONNECTOR PIN	WIRE COLOR	CONNECTION
1	Red	+5 V
2	White	-5 V
3	Yellow	GND
4	Blue	—
5	Green	—
6	Black	—
External Conductor	Shield	GND

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