

The C12419 which furnishes current-to-voltage conversion circuit is designed for use with current sources like photomultiplier tubes.

The performances are convenient to such an application as requiring a low noise and high gain preamplifier.

FEATURES

- Bandwidth: DC to 1 MHz
- Current-to-voltage Conversion Factor:
1 V/ μ A at 1 k Ω Load Resistance
- Inverting Output
- Adjustable Offset Level with VR
- Low Noise and High Gain

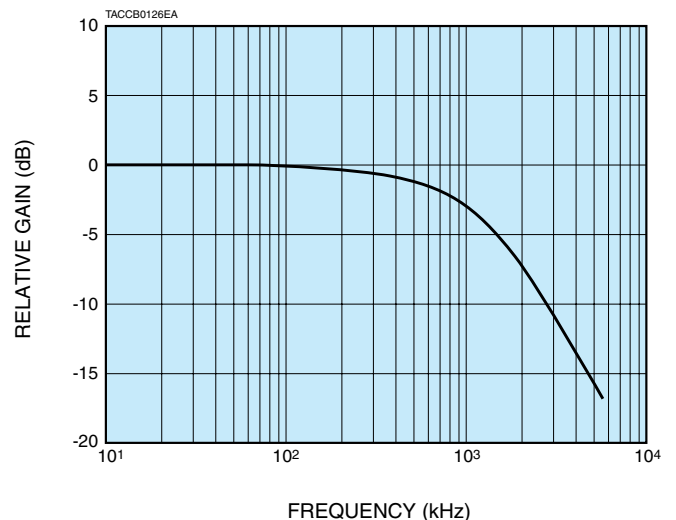
SPECIFICATIONS

Parameter		Description / Value
Frequency Bandwidth (-3 dB)		DC to 1 MHz
Current-to-voltage Conversion Factor	Load Resistance: 1 k Ω	1 V/ μ A
Rise Time	Typ.	350 ns
Input Polarity		Positive / Negative
Max. Input Current		$\pm 100 \mu$ A
Amplifying Method		Inverting Output
Output Impedance		50 Ω
Maximum Output Signal Voltage	Load Resistance: 1 k Ω	± 11 V Min.
	Load Resistance: 50 Ω	± 3 V Min.
Output Noise Voltage ^(A)	Typ.	1 mV rms
Connector	Input	BNC-R
	Output	BNC-R
	Power	DIN (6-pin)
Power Supply Voltage		± 15 V
Max. Power Supply Voltage		± 18 V
Power Supply Current	Max.	± 100 mA
Operating Ambient Temperature		0 $^{\circ}$ C to +40 $^{\circ}$ C
Storage Temperature		-15 $^{\circ}$ C to +60 $^{\circ}$ C
Weight		Approx. 165 g

NOTE: ^(A)Load Resistance: 50 Ω

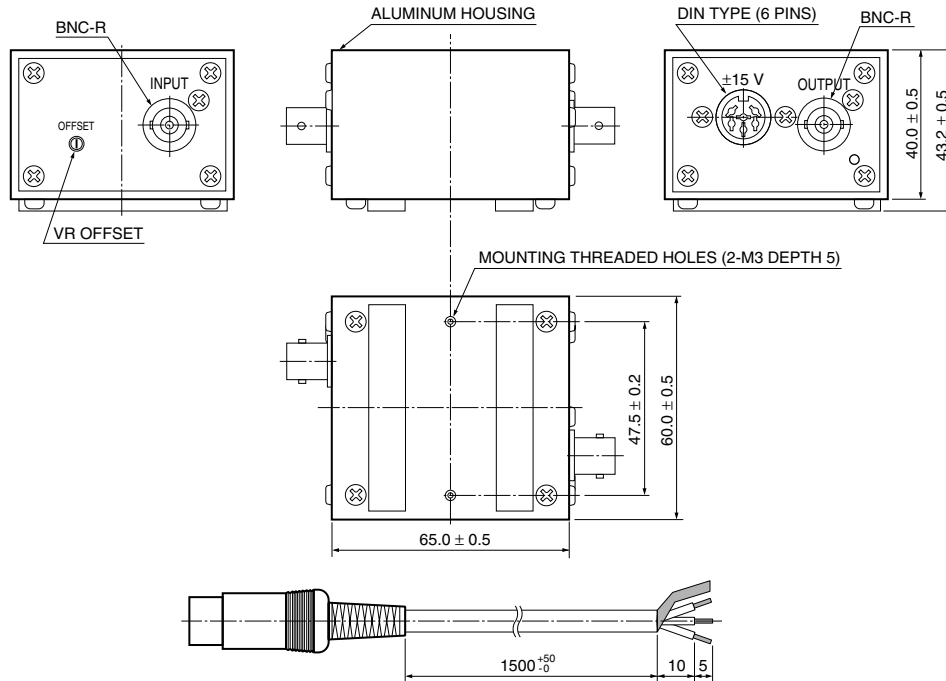


Figure 1: Typical Frequency Response



AMPLIFIER UNIT C12419

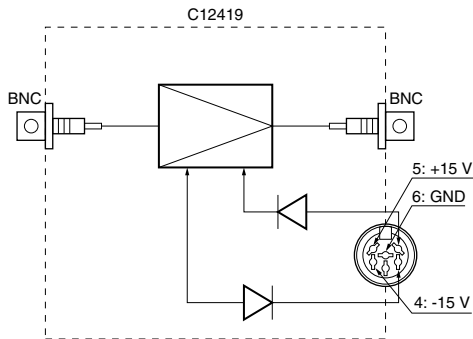
Figure 2: Dimensional Outlines (Unit: mm)



Power cable with connector (6 pin DIN type) is supplied with the C12419.

TACCA0318EA

Figure 3: Internal Connection Diagram



TACCC0160EA

CONNECTOR PIN	WIRE COLOR	CONNECTION
1	—	—
2	—	—
3	—	—
4	White	-15 V
5	Red	+15 V
6	Black	GND
External Conductor	Green	GND

RELATED PRODUCTS

AMPLIFIER UNITS SELECTION GUIDE

Parameter	C7319	C12419	C9999	C6438 C6438-01 C6438-02	C9663	C11184	C5594
Frequency Bandwidth (-3 dB)	DC to 20 kHz or DC to 200 kHz (switchable)	DC to 1 MHz	DC to 10 MHz	DC to 50 MHz	DC to 150 MHz	DC to 300 MHz	50 kHz to 1.5 GHz
Current-to-Voltage Conversion Factor (Load Resistance: 50 Ω)	-0.1 V/μA -1 V/μA, -10 V/μA (switchable) *	-1 V/μA *	+50 mV/μA	+0.5 mV/μA (C6438) +25 mV/μA (C6438-01) +5 mV/μA (C6438-02)	+4 mV/μA	+1.25 mV/μA	+3.15 mV/μA

* Load Resistance: 10 kΩ

Refer to the individual catalogs for detailed information.

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