

The M8879 is a non-inverting amplifier module with 150 MHz bandwidth response, specifically designed for photodetectors such as photomultiplier tubes. The M8879 works with either a current or voltage input, allowing direct connection to a photomultiplier tube or other photodetectors. The M8879 is comprised of a 10 pin hybrid IC to allow a compact mounting size on PC board. The offset voltage is easily adjusted by connecting an external variable resistor.

### ■ FEATURES

- Non-inverting amplifier module operable from DC to 150 MHz
- I/V Conversion Ratio: 4 V/mA
- Compact size: 20 mm × 12.6 mm × 8 mm

### MAXIMUM RATINGS (Absolute Maximum Values)

Parameter	Description/Value	Unit
Supply Voltage ( $\pm V_s$ )	$\pm 6.5$	V
Operating Temperature Range	0 to +40	$^{\circ}\text{C}$
Storage Temperature Range	-15 to +60	$^{\circ}\text{C}$
Maximum Input Voltage	$\pm V_s$	V
Lead Soldering Temperature (Less than 5 s)	+280	$^{\circ}\text{C}$

### CHARACTERISTICS (at 25 $^{\circ}\text{C}$ , $\pm V_s = \pm 5\text{ V}$ )

Parameter	Typ.	Unit
Supply Voltage	Recommend Supply Voltage	$\pm 5$ to $\pm 6$
Supply Current	With no $R_L^*$	31
Voltage Gain ( $V_{out}/V_{in}$ )	Voltage Input, $R_L = 50\ \Omega^*$	80
I/V Conversion Ratio	Current Input, $R_L = 50\ \Omega^*$	4
Frequency Response	$V_{out}$ (p-p) = 1 V, -3 dB Bandwidth	0 to 150
Maximum Output Swing	$R_L = 50\ \Omega^*$	1.4
	With no $R_L^*$	3
Input Impedance		50
Output Impedance		50
Temp. Coefficient of Output Offset Voltage	0 $^{\circ}\text{C}$ < Temperature < +40 $^{\circ}\text{C}$ , $R_L = 50\ \Omega^*$	$\pm 0.2$
Equivalent Input Noise		2.3
Weight		2.5

\* $R_L$ : Output Load Resistor

Figure 1: Typical Frequency Response



