



EM-70/VB VARIABLE BIAS TRANSIMPEDANCE AMPLIFIER

GENERAL DESCRIPTION

The EM-70/VB amplifier is a transimpedance amplifier designed for low impedance photodiodes such as the InAs or MCTPV series devices. It provides a slight reverse bias capability -- up to -100mV -- accessed through a screw pot adjustment. The first stage of the amplifier is a low-gain DC-coupled stage, followed by a x100 AC-coupled second stage.

SPECIFICATIONS

Amplifier Gain	100 V/A 1 st stage X100 V/V second stage
Input Noise Current	1.5 pA/Hz ^{1/2}
Input Noise Voltage	0.9 nV/Hz ^{1/2}
Bandwidth	DC – 500kHz 1 st stage 5Hz – 500kHz 2 nd stage
Bias Adjust Range	~-1mV to -120mV
Bias Polarity	Negative at center pin (Designed for center anode, grounded cathode)
Adjustment Polarity	Counterclockwise rotation of the screw pot increases the negative bias
Power Requirements	+,- 15VDC, 20mA Note: the unit will operate from +,- 5VDC to +,- 18VDC. The bias range scales in proportion.

CAUTION: DOUBLE CHECK POLARITY OF POWER SUPPLY CONNECTIONS AND PHOTODIODE PRIOR TO POWERING UP!