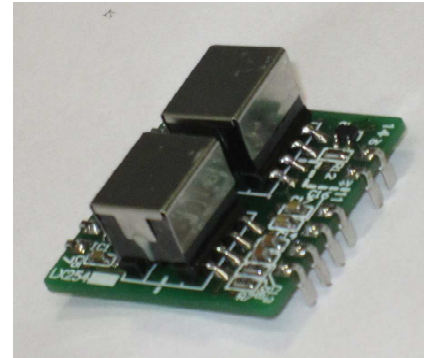




ISOLATION AMPLIFIER LX254



FEATURE

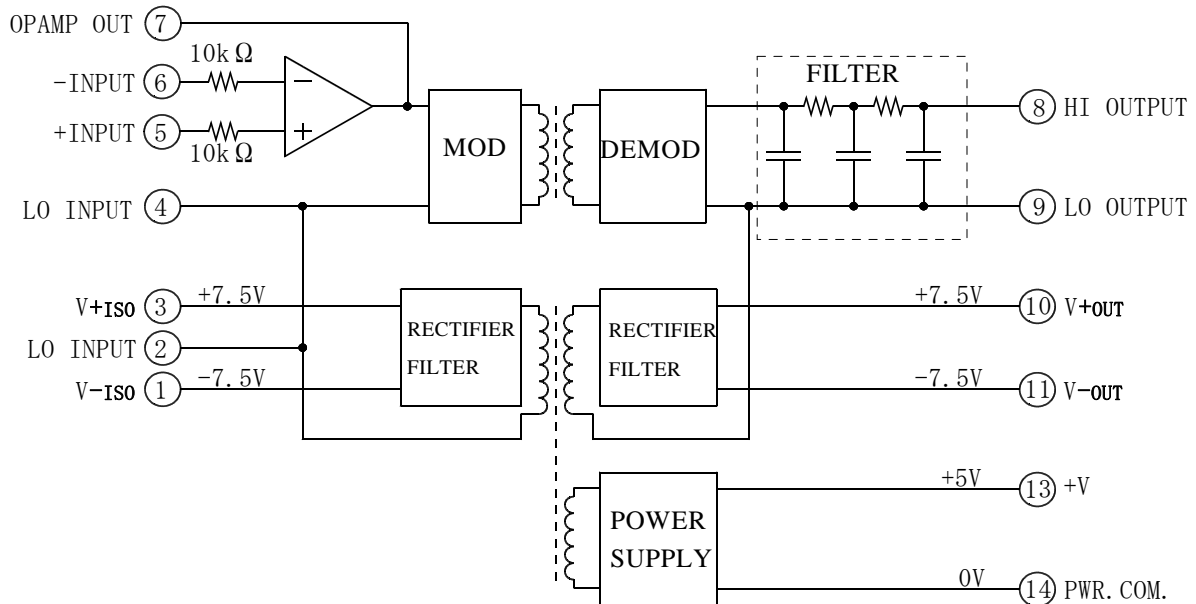
- High Accuracy and High Quality Isolation Amplifier
- 5 V Drive Power Supply
- Small Size

OUTLINE

Model LX254 is an amplifier of High Accuracy Isolation Amplifier

- Input Voltage Range $\pm 5V$
- Output Voltage Range $\pm 5V$
- Isolation Withstanding Voltage
 - Input—Output 2000VAC
 - Input—Power Supply 2000VAC
 - Output—Power Supply 100VAC
- Non-Linearity $\pm 0.05\%FS_{max}$
- Temperature range in Operating $-10^{\circ}C \sim 70^{\circ}C$
- Isolated Power Supply $\pm 7.5V$ 2mA
- Power Supply Voltage $5V \pm 0.25V$
- Dimension $25.4 \times 25.4 \times 13mm$

BLOCK DIAGRAM



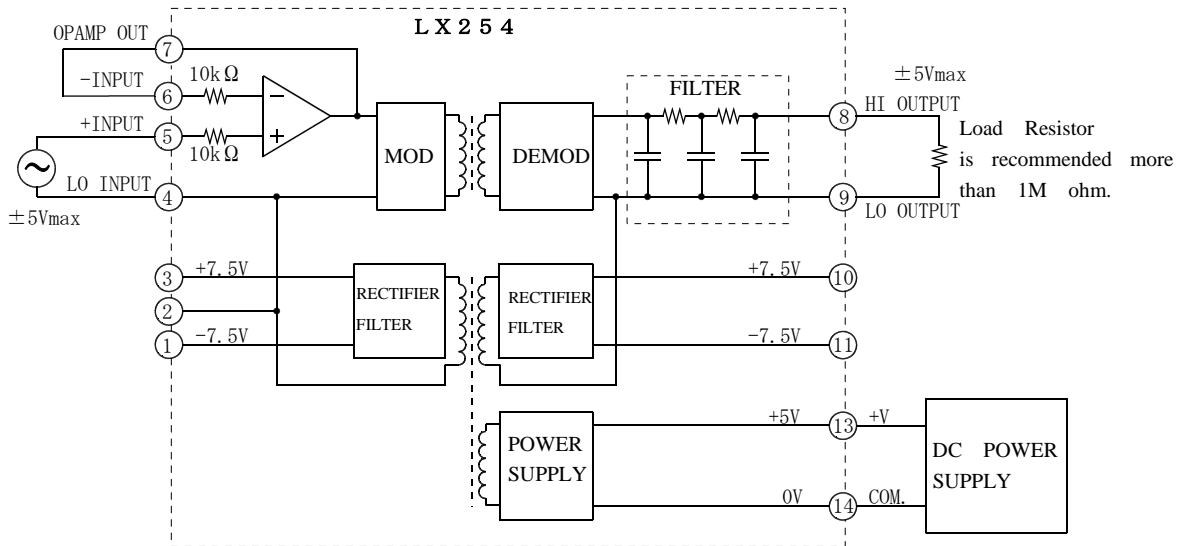
■ Absolute Maximum Rating

Power Supply Voltage	5.75V
Operating Temperature Range	-10°C~70°C
Operating Humidity Range	Less than90%Rh (No Dew)
Storage Temperature Range	-25°C~85°C
Storage Humidity Range	Less than90%Rh (No Dew)
Soldering Temperature	Less than260°C 10Sec

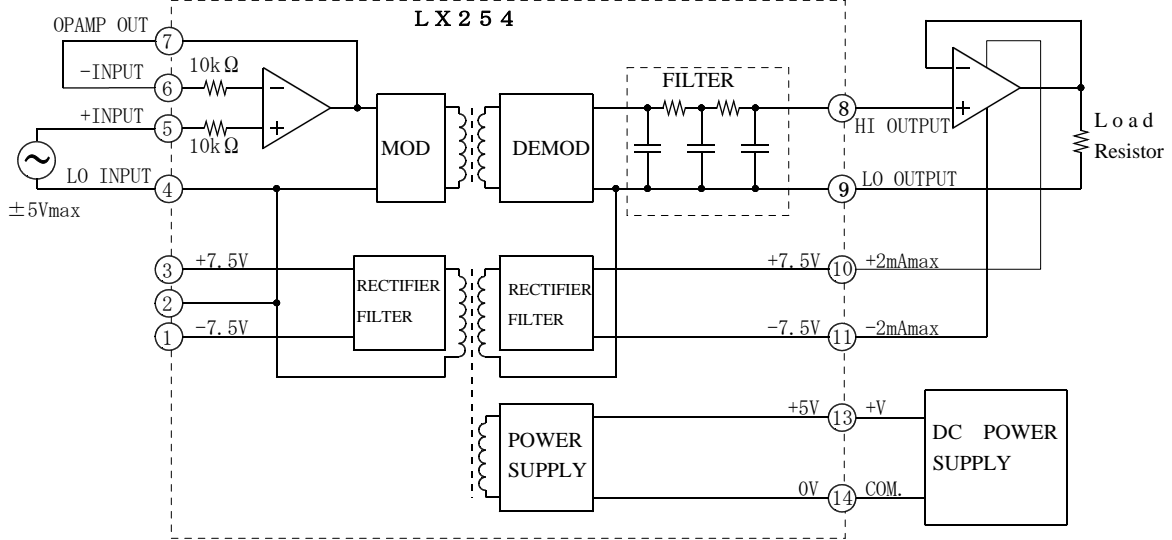
■ Electronic Characteristics (Ta=25°C、GAIN=+1、+V=5.0V、Isolated Power Supply is no load)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Input Characteristics					
Input Voltage		±5			V
Input Bias Current	Initial		2		nA
Offset Voltage			±2	±10	mV
Offset Temperature Drift	-10°C~70°C		±10		μV/°C
Output Characteristics					
Output Voltage	Load Resistance1000kΩ	±5			V
Output Impeadance			0.8	1	kΩ
Output Ripple	Band Pass Width20MHz			20	mVp-p
Gain Characteristics					
Accuracy	Load Resistance = More than 1000kΩ		0.5	1	%
Temperature Drift	-10°C~70°C		0.001	0.005	%/°C
Non-Linearity			0.02	0.05	%FS
Frequency Characteristics					
Band Pass Width	Vin=±5V SIN、 -3dB	3.5	4		KHz
Isolation					
Input-Output		2000			ACrms
Input-Power Supply		2000			ACrms
Output-Power Supply		100			ACrms
CMRR	100V/50Hz		110		dB
Isolated Output Voltage (V+ISO、V-ISO)					
Voltage			±7.5	±9.0	V
Possible Supply Current				±2	mA
Ripple Voltage	Band Pass Width20MHz			50	mVp-p
Isolated Output Voltage (V+OUT、V-OUT)					
Voltage			±7.5	±9.0	V
Possible Supply Current				±2	mA
Ripple Voltage	Band Pass Width20MHz			50	mVp-p
Power Supply					
Voltage		4.75	5.00	5.25	V
Current Consumption			7		mA
Stray Capacity					
Input-Output			8		pF
Input-Power Supply			5		pF
Weight					
			7		g

■ Typical Connection in case of Plus side input and Gain= 1

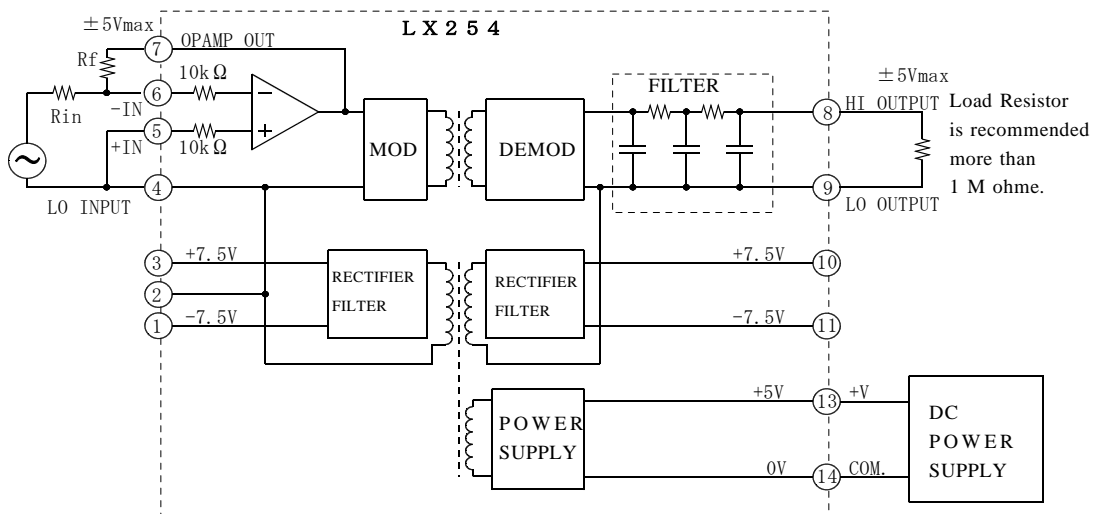


In case of Low Load Resistor, Connect OPamp additionally.

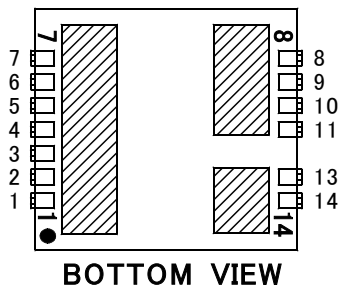
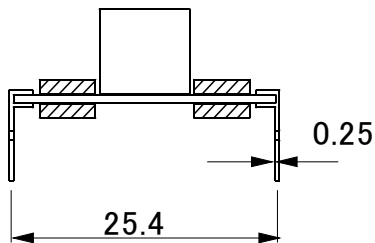
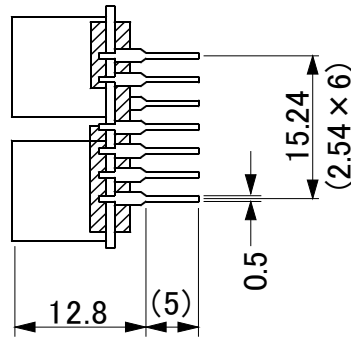
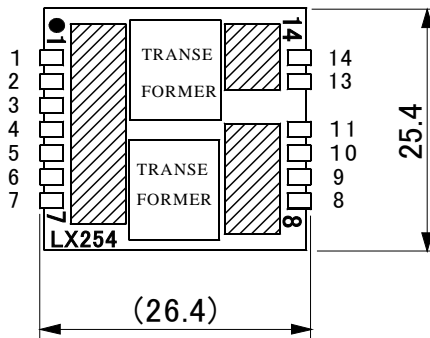


Output at Input OPAMP (⑦TERMINAL OPAMP OUT) shall adjust so that it is not more than ±5V.

■ Typical Connection in case of Minus side input and Gain= $-(R_f/R_{in})$



■ CNSTRUCTION



PIN	FUNCTION
1	V-ISO (-7.5V)
2	LO INPUT
3	V+ISO (+7.5V)
4	LO INPUT
5	+INPUT
6	-INPUT
7	OPAMP OUT (F. B)
8	HI OUTPUT
9	LO OUTPUT
10	V+OUT (+7.5V)
11	V-OUT (-7.5V)
12	No Terminal
13	+V (+5V)
14	PWR. COM.

• Silicon Molded Version is available. Model No. is LX254M.

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