

KA2182/KA2183

LINEAR INTEGRATED CIRCUIT

REMOTE CONTROL PREAMPLIFIER

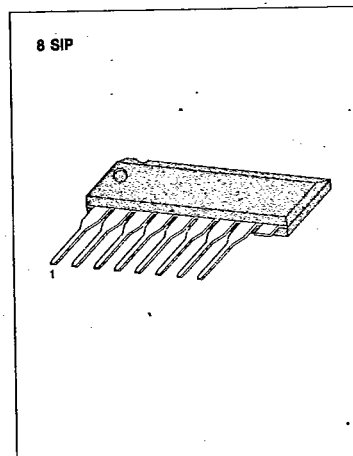
The KA2182/KA2183 are silicon monolithic integrated circuit designed for a remote control preamplifier of infrared signals. These devices have features of low power, high sensitivity and wide supply voltage.

FUNCTIONS

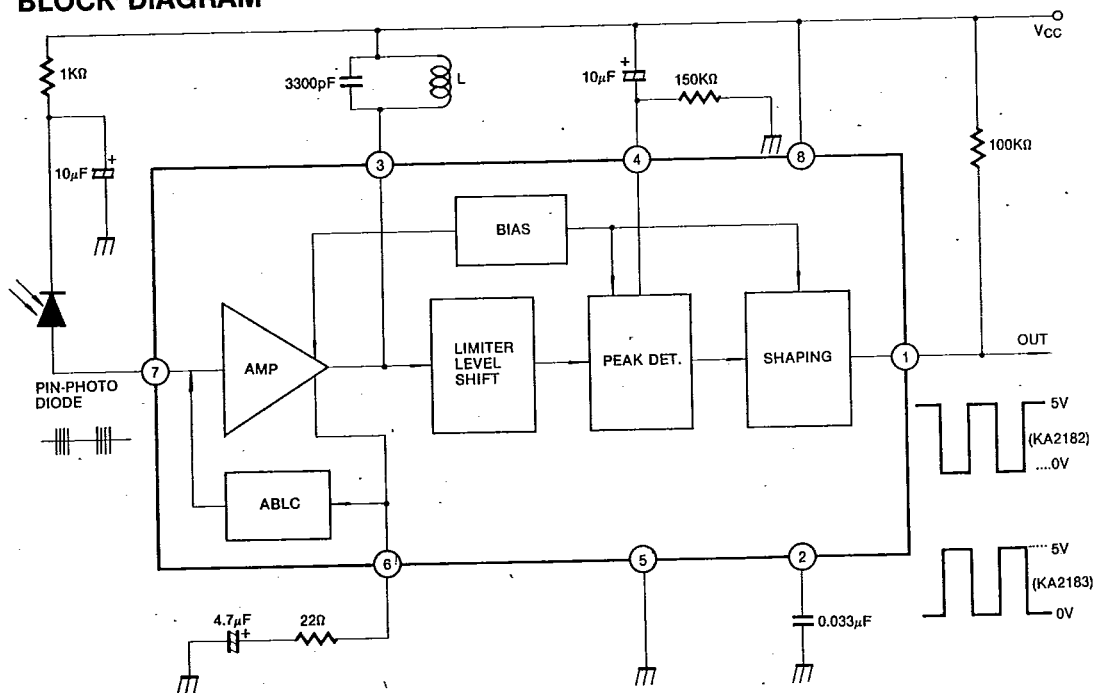
- AMP
- ABLC
- Limiter & Level Shift
- Shaping
- Peak Det

FEATURES

- Wide Operation Voltage:  $V_{CC} = 4$  to  $8V$
- Low Power Consumption:  $I_{CC} = 2.2mA$  Typ. (KA2182)
- High Input Sensitivity:  $50\mu V_{pp}$  2.3mA Typ. (KA2183)
- Peak Detector
- Small Size Package: 8 SIP
- Minimum Number of External Parts Required
- Output: Active Low (KA2182)  
Active High (KA2183)



BLOCK DIAGRAM



KA2182/KA2183

LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristics	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	8	V
Operating Temperature	T <sub>opr</sub>	-20 ~ +75	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +125	°C

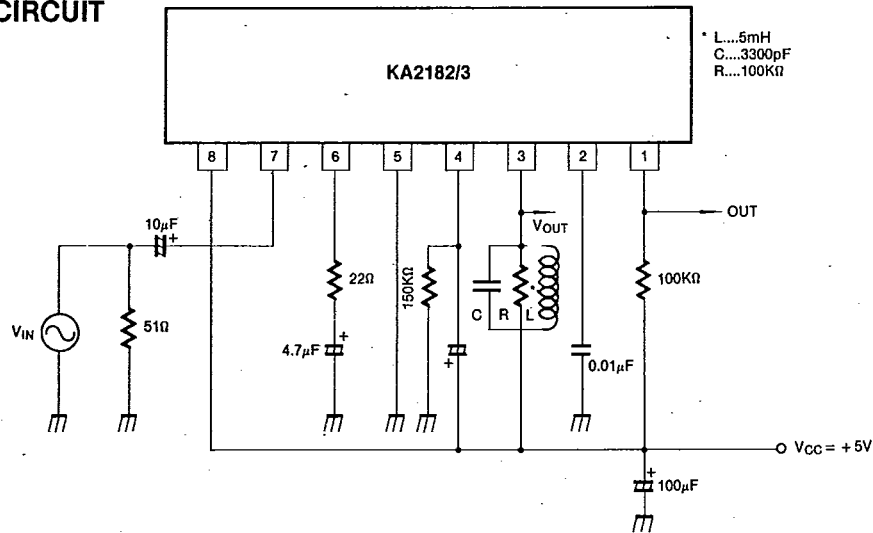
RECOMMENDED OPERATING CONDITIONS

Characteristics	Symbol	Min	Typ	Max	Unit
Power Supply	V <sub>CC</sub>	4.0	5.0	8.0	V
Input Frequency	F <sub>IN</sub>	30		50	KHz

ELECTRICAL CHARACTERISTICS (Ta = 25°C, V<sub>CC</sub> = 5V, f<sub>IN</sub> = 40KHz)

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Supply Current	I <sub>CC</sub>	KA2182	1.2	2.2	3.2	mA
		KA2183	1.3	2.3	3.3	mA
Input Terminal Voltage	V <sub>IN1</sub>		1.0	1.2	1.5	V
Input Terminal Voltage	V <sub>IN2</sub>	I <sub>IN</sub> = 70μA	1.7	2.3	3.0	V
1st Stage Voltage Gain	A <sub>VL</sub>	V <sub>OUT</sub> = 500mV <sub>P-P</sub>		60		dB
Detection Input Voltage	V <sub>IN</sub>			50	100	μV
Output Voltage	KA2182	I <sub>OL</sub> = 0.1mA, V <sub>IN</sub> = 1mV <sub>P-P</sub>			0.5	V
	KA2183					
Output Leak Current	I <sub>OH</sub>	V <sub>OH</sub> = 14.4V			2	μA

TEST CIRCUIT



APPLICATION CIRCUIT

