

REMOTE CONTROL PREAMPLIFIER

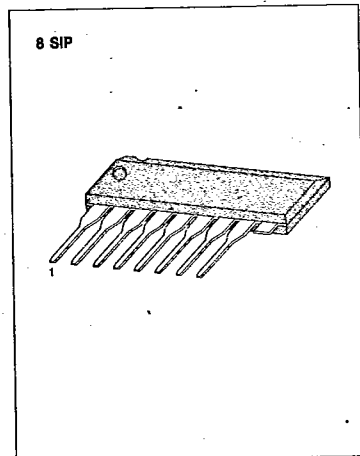
The KA2182/KA2183 are silicon monolithic integrated circuit designed for a remote control preamplifier of infrared signals. These devices have features of low power, high sensitivity and wide supply voltage.

FUNCTIONS

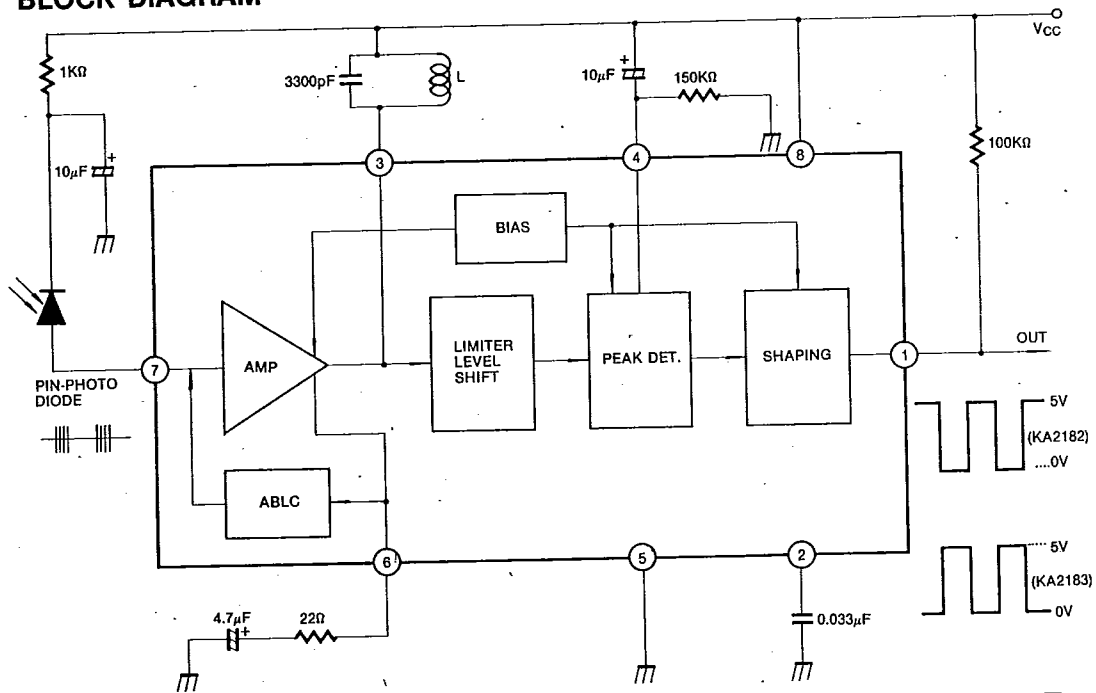
- AMP
- ABLC
- Limiter & Level Shift
- Shaping
- Peak Det

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



ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Characteristics	Symbol	Value	Unit
Supply Voltage	V _{CC}	8	V
Operating Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-40 ~ +125	°C

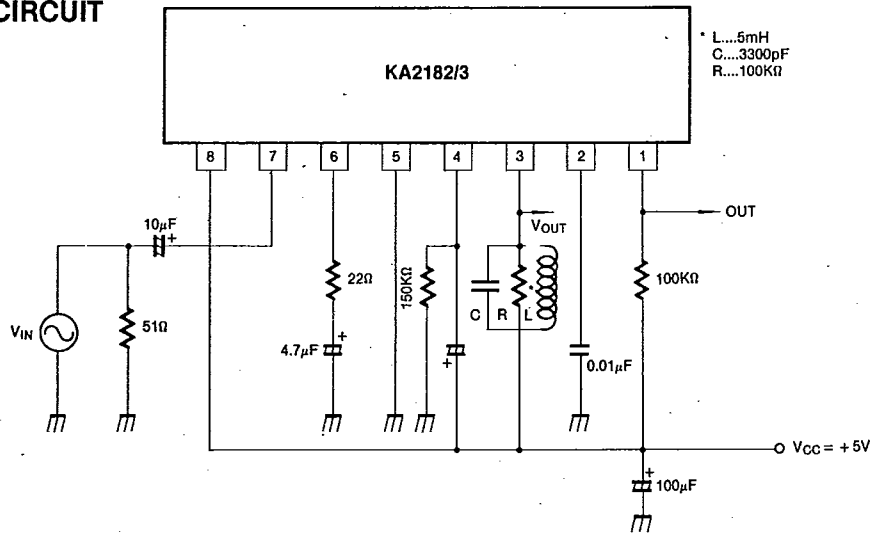
RECOMMENDED OPERATING CONDITIONS

Characteristics	Symbol	Min	Typ	Max	Unit
Power Supply	V _{CC}	4.0	5.0	8.0	V
Input Frequency	f _{IN}	30		50	KHz

ELECTRICAL CHARACTERISTICS (Ta = 25°C, V_{CC} = 5V, f_{IN} = 40KHz)

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

TEST CIRCUIT



APPLICATION CIRCUIT

