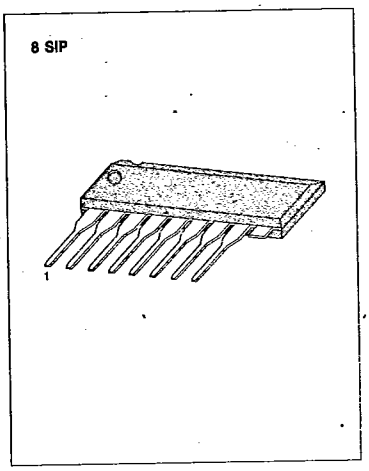
REMOTE CONTROL PREAMPLIFIER

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.



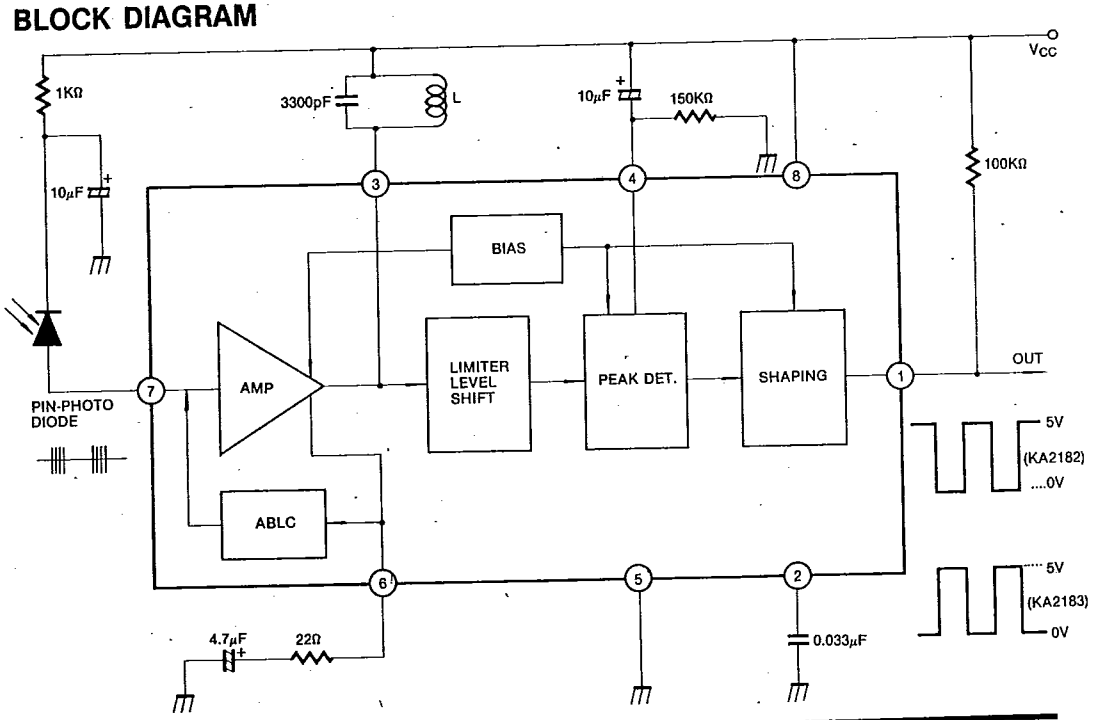
FUNCTIONS

- AMP
- ABLC
- Limitter & 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$\mu V_{p\text{-}p}$ 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

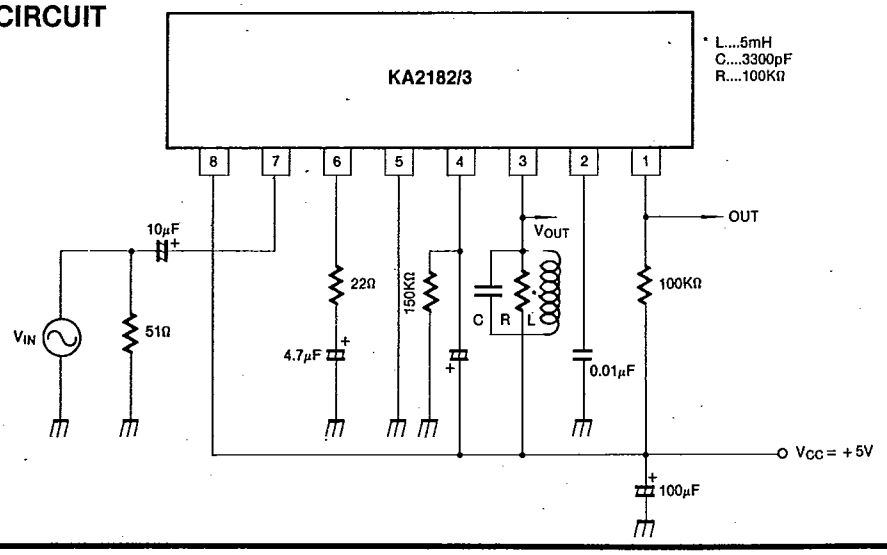
RECOMMENDED OPERATING CONDITIONS

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}	$I_{IN} = 70\mu A$		1.7	2.3	3.0	V
1st Stage Voltage Gain		A_{VL}	$V_{OUT} = 500mV_{P\text{-}P}$			60		dB
Detection Input Voltage		V_{IN}				50	100	μV
Output Voltage	KA2182	V_{OL}	$I_{OL} = 0.1mA$, $V_{IN} = 1mV_{P\text{-}P}$				0.5	V
	KA2183		$I_{OL} = 0.1mA$, No Input					
Output Leak Current		I_{OH}	$V_{OH} = 14.4V$				2	μA

TEST CIRCUIT



APPLICATION CIRCUIT

