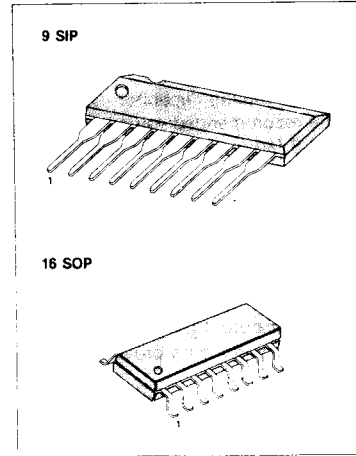


**FM STEREO MULTIPLEX DECODER**

The KA2264 is a monolithic integrated circuit consisting of a phase locked loop FM stereo demodulator. It is designed for use in 3V radio cassette recorders.

**FEATURES**

- Low voltage operation:  $V_{CC} = 1.8V \sim 5V$ .
- Excellent space-factor: 9 SIP/16 SOP.
- Minimum number of external parts required.
- Easy monitoring of VCO free running frequency is available at Pin 6.
- High pilot sensitivity:  $V_{L(ON)} = 9mV$  (Typ).
- Lamp drive current: max lamp current = 8mA.
- VCO stop and stereo lamp turn-off are simultaneously operated by connecting Pin 7 to  $V_{CC}$ .



**ORDERING INFORMATION**

Device	Package	Operating Temperature
KA2264	9 SIP	- 20 °C ~ + 70 °C
KA2264D	16 SOP	

**BLOCK DIAGRAM**

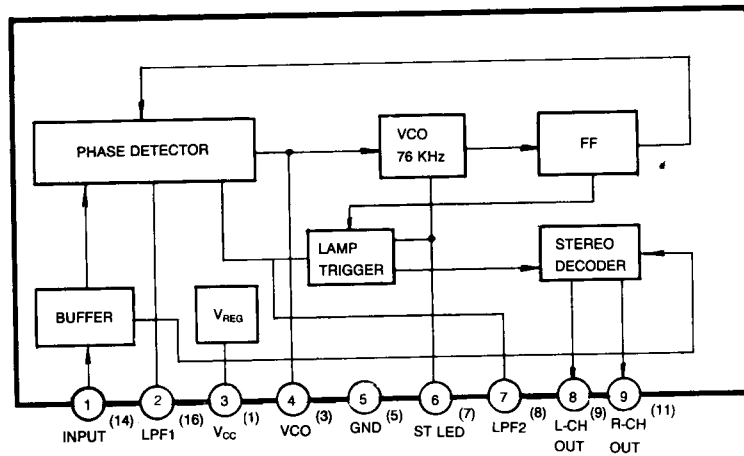


Fig. 1

( ) : KA2264D

ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

Characteristic	Symbol	Value	Unit
Supply Voltage	$V_{CC}$	6	V
Lamp Voltage	$V_{LAMP}$	8	V
Lamp Current	$I_{LAMP}$	8	mA
Power Dissipation	KA2264	500	mW
	KA2264D	350	
Operating Temperature	$T_{OPR}$	-20 ~ +70	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +125	$^\circ\text{C}$

\* Derated above  $T_a = 25^\circ\text{C}$  in the proportion of  $4\text{mW}/^\circ\text{C}$  (KA2264D:  $2.8\text{mW}/^\circ\text{C}$ )

## ELECTRICAL CHARACTERISTICS

( $T_a = 25^\circ\text{C}$ ,  $V_{CC} = 3\text{V}$ ,  $f = 1\text{KHz}$ , unless otherwise specified)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit	
Circuit Current	$I_{CCO}$	$V_i = 0$		4.5	8.0	mA	
Maximum Input Voltage	$V_{i(MAX)}$ Stereo	L + R = 90%, P = 10% $f = 1\text{KHz}$ , THD = 5%		400		mV	
Channel Separation	CS	L + R = 180mV P = 20mV	f = 100Hz		35		dB
			f = 1KHz	30	35		
			f = 10KHz		35		
Total Harmonic Distortion	Mono	THD 1	$V_i = 200\text{mV}$	0.4	1.0	%	
	Stereo	THD 2	L + R = 180mV, P = 20mV	0.5			
Voltage Gain	$G_V$	$V_i = 200\text{mV}$	-6.5	-5.0	-3.5	dB	
Channel Balance	CB	$V_i = 200\text{mV}$		0	1.5	dB	
Signal to Noise Ratio	S/N	$V_i = 200\text{mV}$ $R_G = 620\Omega$		82		dB	
Lamp Level	ON	$V_{L(ON)}$	Pilot only		9	15	mV
	OFF	$V_{L(OFF)}$		2	6		
Lamp Hysteresis	HY			3		mV	
Capture Range	CR	P = 20mV		$\pm 3$		%	
Carrier Leakage	19KHz	$V_{LKG}$	P = 20mV L + R = 180mV		32		dB
	38KHz				60		

TEST CIRCUIT 1

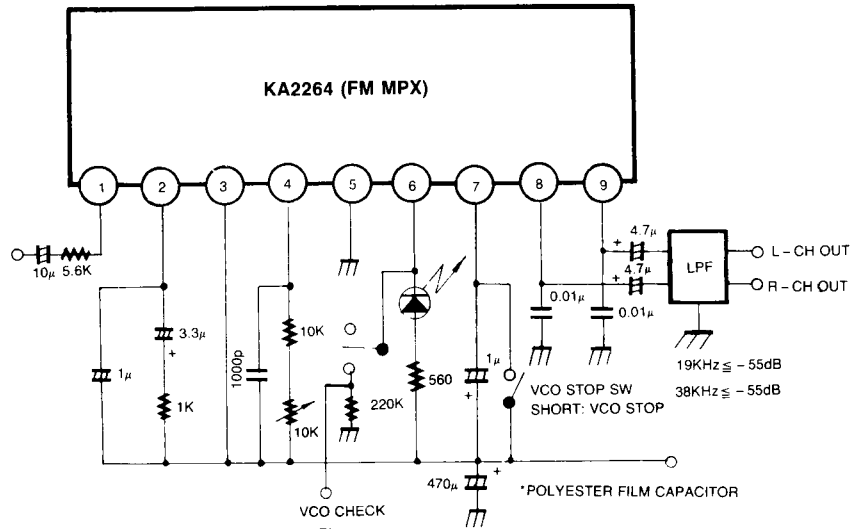


Fig. 2

TEST CIRCUIT 2

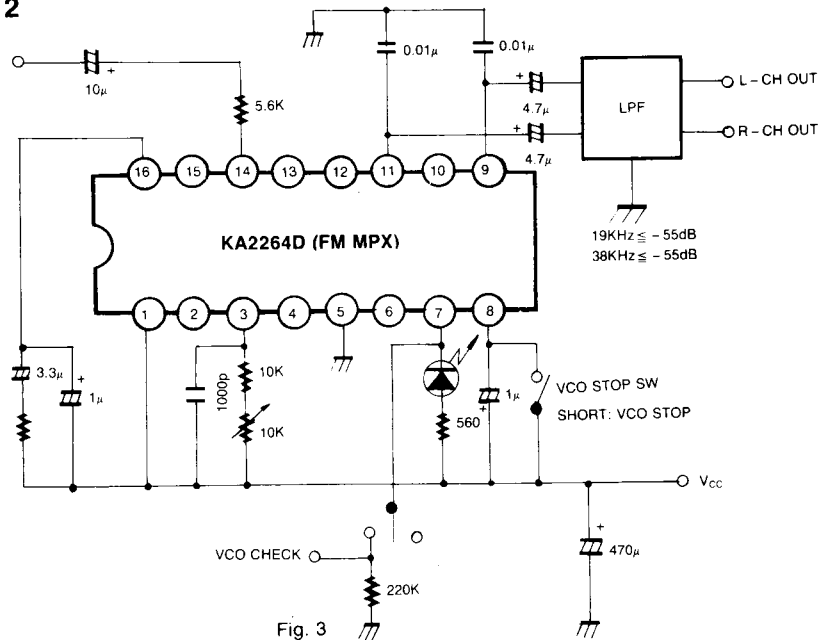


Fig. 3