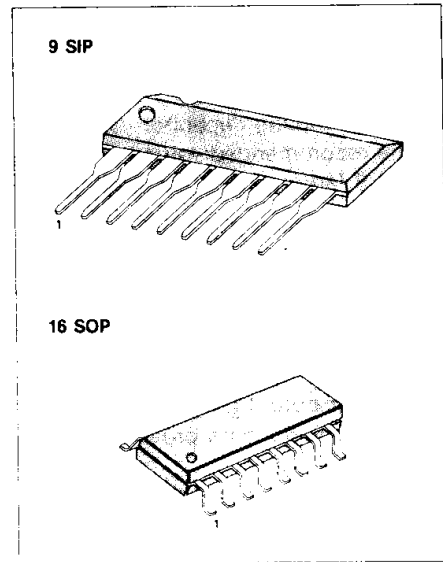


### FM STEREO MULTIPLEX DECODER

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

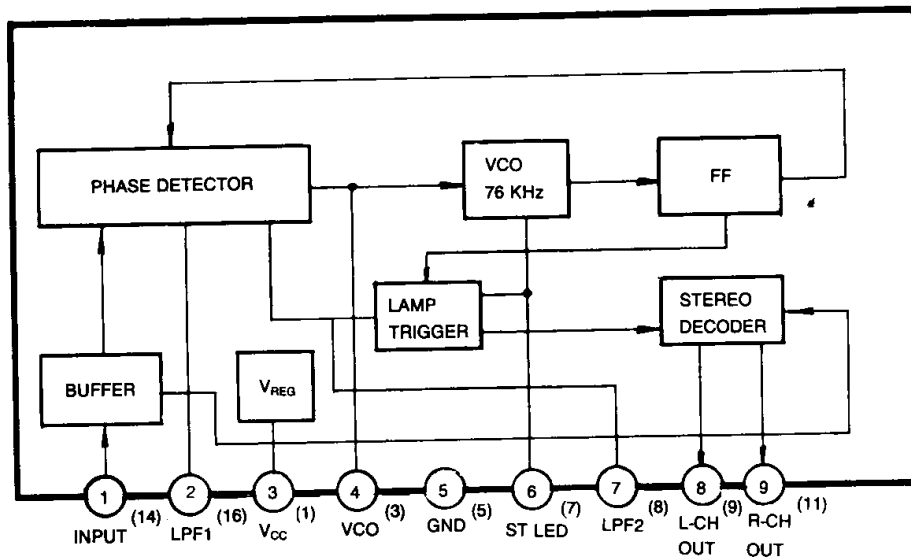


Fig. 1

( ) : 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	$P_D$	500	mW
	KA2264D		350	
Operating Temperature		$T_{OPR}$	-20 ~ +70	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-40 ~ +125	$^\circ\text{C}$

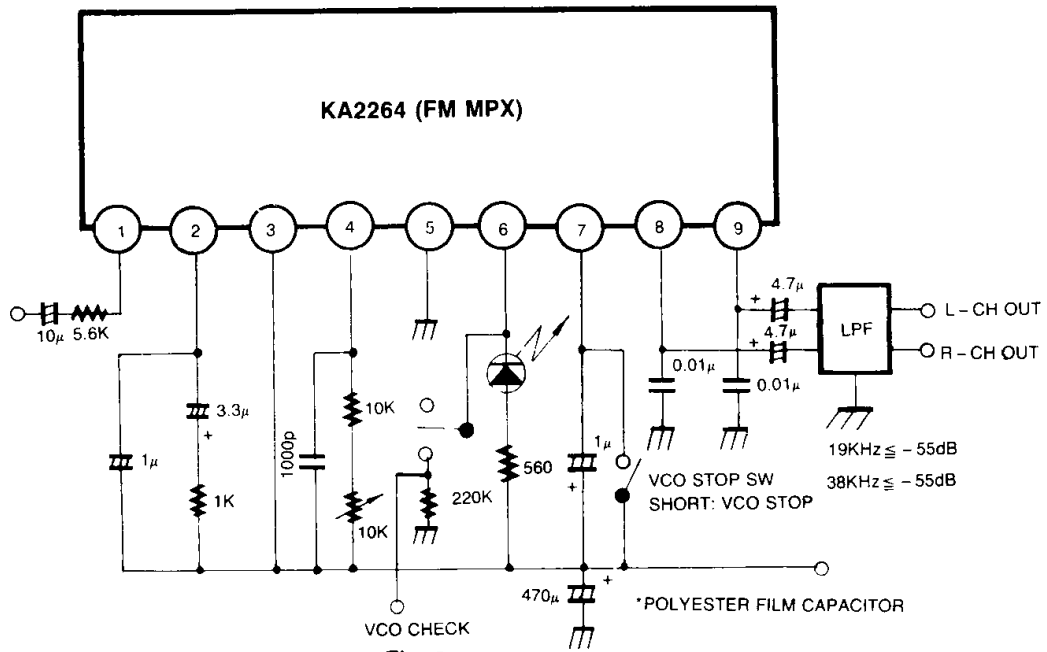
\* Derated above  $T_a = 25^\circ\text{C}$  in the proportion of  $4\text{mW}/^\circ\text{C}$  (KA2264D:  $2.8\text{mW}/^\circ\text{C}$ )

## 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



TEST CIRCUIT 2

