

**LA7214**

## VCR-Use Automatic Channel Selection Peripheral

### Overview

The LA7214 is a VCR-use automatic channel selection peripheral IC that contains a sync separator, a video buffer, and a comparator.

### Functions and Features

- Sync separator
- Video buffer
- Comparator
- Recommended supply voltage : 5V
- Sync separator, comparator output of open collector type ( $R_L=10k\Omega$ ), negative polarity output.

### Specifications

#### Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC \text{ max}}$		7.0	V
Allowable power dissipation	$P_d \text{ max}$	$T_a \leq 75^\circ\text{C}$	150	mW
Operating temperature	$T_{op}$		-15 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +125	$^\circ\text{C}$

#### Operating Conditions at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	$V_{CC}$		5.0	V
Operating voltage range	$V_{CC \text{ op}}$		4 to 6	V

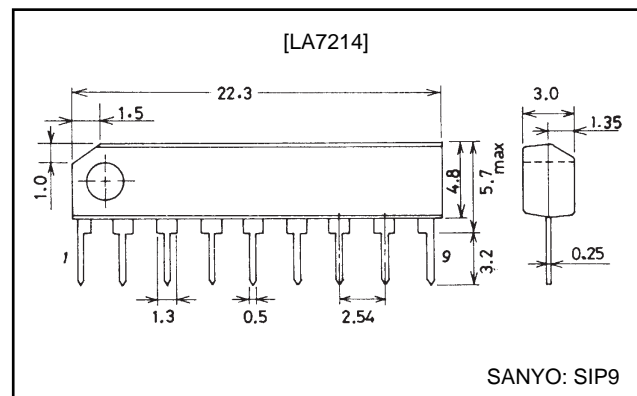
#### Operating Characteristics at $T_a=25^\circ\text{C}$ , $V_{CC}=5\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Circuit Current	$I_{CC}$	No load	4	6.5	9	mA
Sync separation operating current	$I_{SYNC}$	SW1=b		85		$\mu\text{A}$
Sync separation minimum input level	$V_I \text{ min}$	Color bar signal $1V_p-p=0\text{dB}$ , SW1=a		-12		dB
Buffer amp gain	$G_1$	$R_L=240\Omega$ , $V_{IN}=1V_p-p$ , 500kHz	-2	-1	0	dB
Buffer amp gain	$G_2$	$R_L=240\Omega$ , $V_{IN}=1V_p-p$ , 5MHz	-2	-1	0	dB
Comparator reference voltage	$V_7$			2.5		V
Hysteresis amount	$\Delta V_7$	$\Delta V_7=V_{7H}-V_{7L}$		50		mV
Output DC level	$V_{1H}$	No load	4.9			V
Output DC level	$V_{1L}$	No load			0.2	V
Output DC level	$V_{8H}$	No load	4.9			V
Output DC level	$V_{8L}$	No load			0.2	V

### Package Dimensions

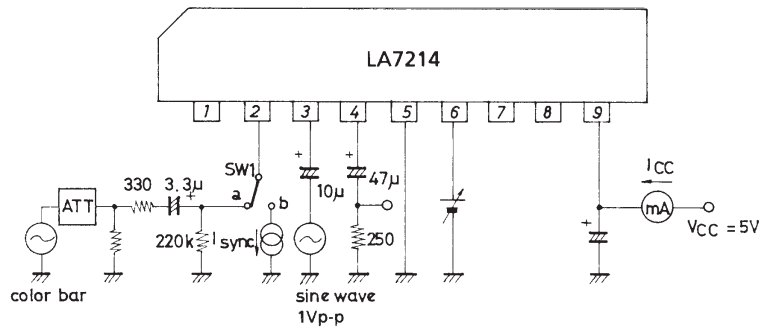
unit: mm

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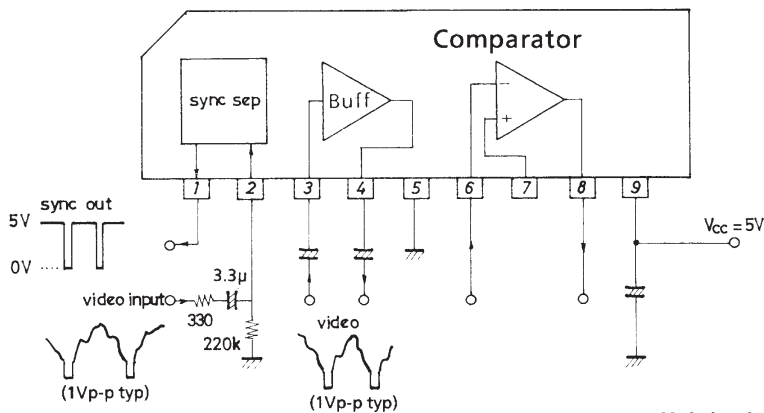
# LA7214

## Test Circuit



Unit (resistance :  $\Omega$ , Capacitance : F)

## Sample Application Circuit



Unit (resistance :  $\Omega$ , Capacitance : F)

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