

**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

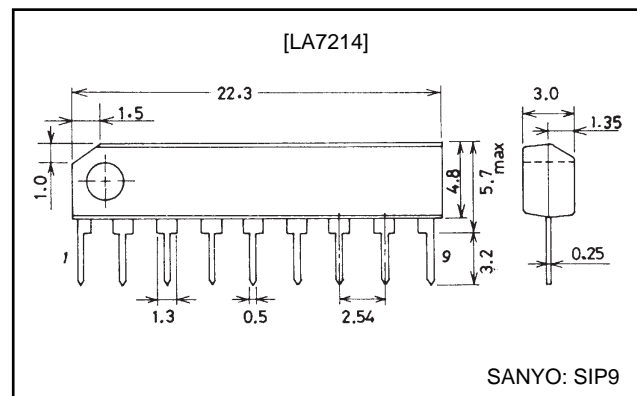
Operating Characteristics at $T_a=25^\circ\text{C}$, $V_{CC}=5\text{V}$

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		μA
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	ΔV_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

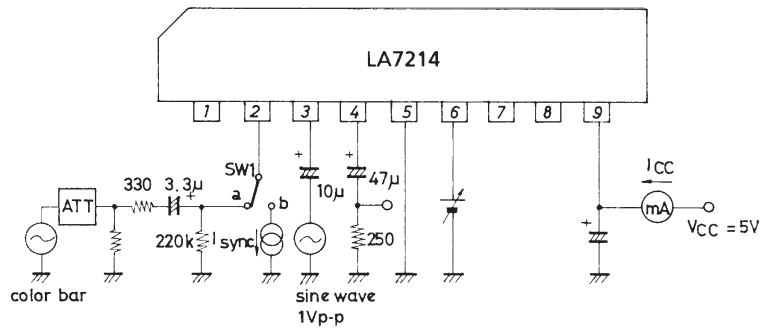
unit: mm

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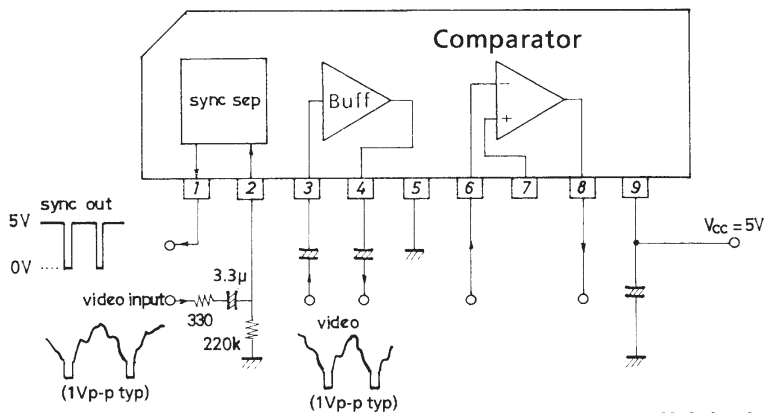
LA7214

Test Circuit



Unit (resistance : Ω , Capacitance : F)

Sample Application Circuit



Unit (resistance : Ω , Capacitance : F)

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