

Monolithic Linear IC



**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<sub>L</sub>=10kΩ), negative polarity output.

**Specifications**

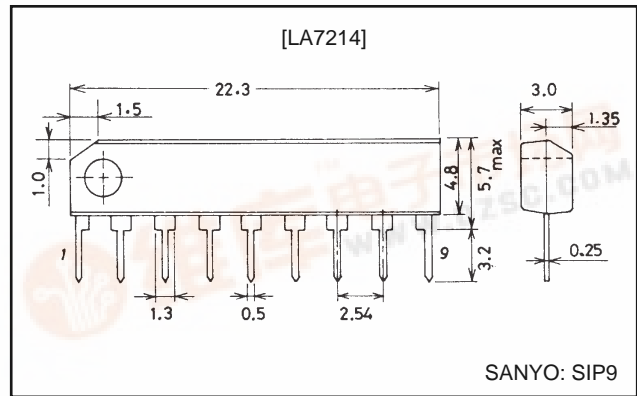
**Maximum Ratings** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V <sub>CC</sub> max		7.0	V
Allowable power dissipation	P <sub>d</sub> max	Ta≤75°C	150	mW
Operating temperature	Topr		-15 to +75	°C
Storage temperature	Tstg		-40 to +125	°C

**Package Dimensions**

unit: mm

**3017C-SIP9**



**Operating Conditions** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V <sub>CC</sub>		5.0	V
Operating voltage range	V <sub>CC</sub> op		4 to 6	V

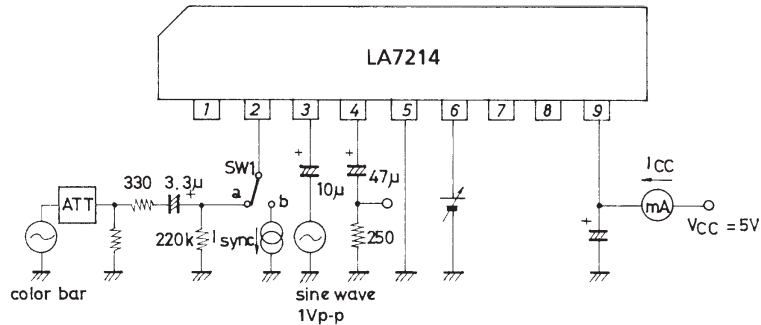
**Operating Characteristics** at Ta=25°C, V<sub>CC</sub>=5V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Circuit Current	I <sub>CC</sub>	No load	4	6.5	9	mA
Sync separation operating current	I <sub>SYNC</sub>	SW1=b		85		μA
Sync separation minimum input level	V <sub>I</sub> min	Color bar signal 1Vp-p=0dB, SW1=a		-12		dB
Buffer amp gain	G <sub>1</sub>	R <sub>L</sub> =240Ω, V <sub>I</sub> N=1Vp-p, 500kHz	-2	-1	0	dB
Buffer amp gain	G <sub>2</sub>	R <sub>L</sub> =240Ω, V <sub>I</sub> N=1Vp-p, 5MHz	-2	-1	0	dB
Comparator reference voltage	V <sub>7</sub>			2.5		V
Hysteresis amount	ΔV <sub>7</sub>	ΔV <sub>7</sub> =V <sub>7H</sub> -V <sub>7L</sub>		50		mV
Output DC level	V <sub>1H</sub>	No load	4.9			V
Output DC level	V <sub>1L</sub>	No load			0.2	V
Output DC level	V <sub>8H</sub>	No load	4.9			V
Output DC level	V <sub>8L</sub>	No load			0.2	V



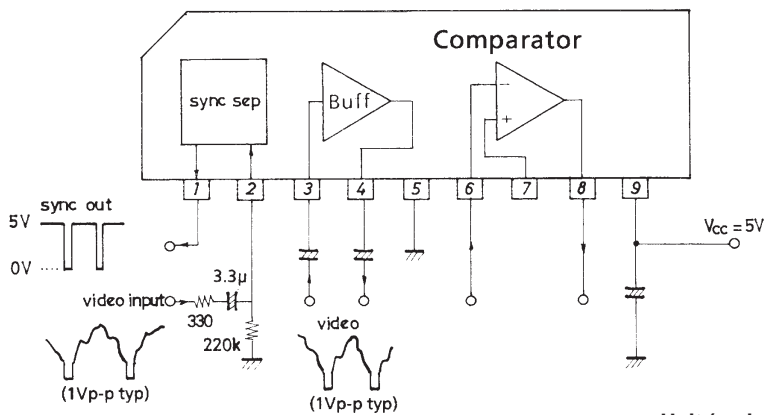
## LA7214

### Test Circuit



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

### Sample Application Circuit



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

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