

SANYO	No.1052A	Monolithic Linear IC
		LA7016
VCR Electronic Switch		

Features

- Wide input dynamic range
- Low distortion
- Good frequency characteristic

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

Maximum supply voltage	V_{CC} max	15	unit
Allowable power dissipation	P_d max	300	mW
Operating Temperature	T_{opr}	-20 to $+65$	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to $+125$	$^\circ\text{C}$

Operation Characteristics/ $T_a=25^\circ\text{C}$, $V_{CC}=12\text{V}$

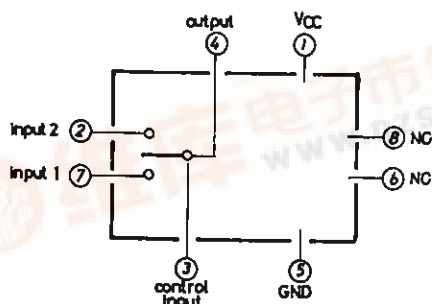
Circuit current	I_D			9.3	12.5	mA
Total Harmonic distortion	THD	* $R_g=600\Omega$, $4.5V_{p-p}$, $f=1\text{kHz}$, $R_L=\infty$		0.007	0.1	%
Noise	e_n	* $R_g=600\Omega$, $f=20\text{Hz}$ to 20kHz , $R_L=\infty$		-93	-80	dBs
Crosstalk	I_{s1}	*Input A: $R_g=50\Omega$, $f=3.58\text{MHz}$ $2V_{p-p}$, Input B: $R_g=1\text{k}\Omega$	50	68		dB
Pedestal	ΔV_{ped}	$V_3=2.2\text{V}$ to 3.0V	-100	0	+100	mV
Second harmonic		$R_g=50\Omega$, $f=1\text{MHz}$, $4.0V_{p-p}$, $R_L=\infty$	46	55		dB
Third harmonic		$R_g=50\Omega$, $f=1\text{MHz}$, $4.0V_{p-p}$, $R_L=\infty$	46	52		dB
Control, threshold voltage	V_{3s}		2.2	2.6	3.0	V
Pin voltage (pin 4)	V_4			6.9	6.9	V
Pin voltage (pin 7)	V_7	$V_3=2.2\text{V}$		7.6		V
Pin voltage (pin 7)	V_7	$V_3=3.0\text{V}$		7.6		V
Pin voltage (pin 2)	V_2	$V_3=3.0\text{V}$		7.6		V
Pin voltage (pin 2)	V_2	$V_3=2.2\text{V}$		7.6		V

Note) *: Test for input 1 and input 2.

For input 1 test, V_{cont} (pin 3 voltage) is 2.0V.

For input 2 test, V_{cont} is 3.0V.

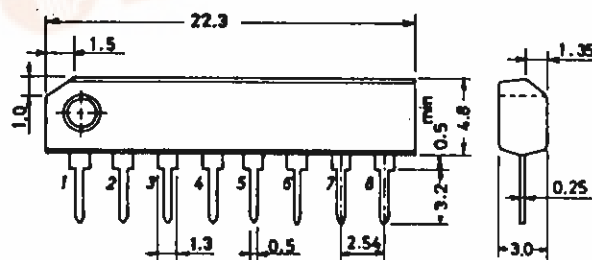
Equivalent Circuit Block Diagram



Package Dimensions

(unit : mm)

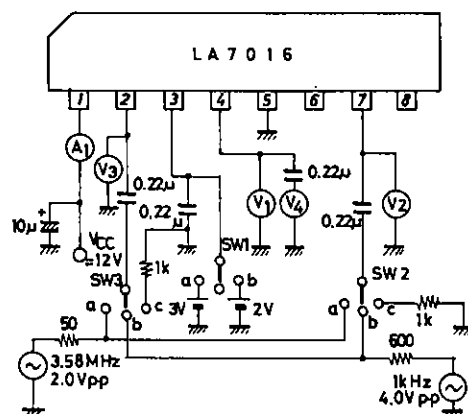
3016B



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Test Circuit

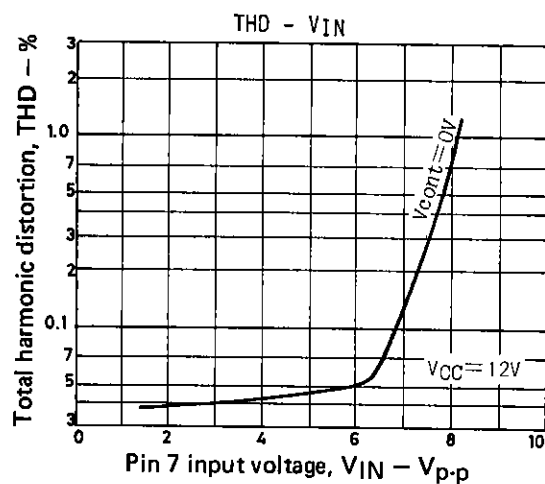
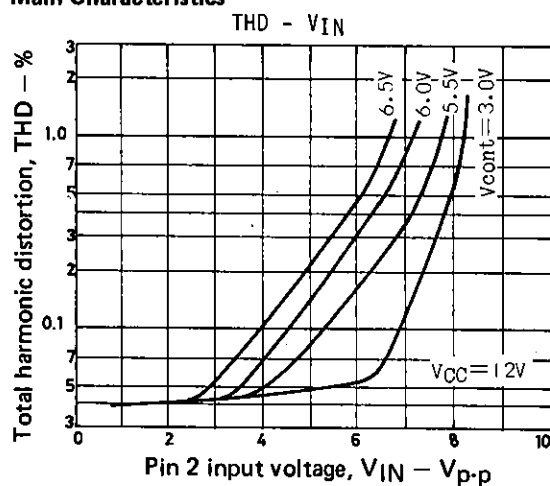


Test Conditions

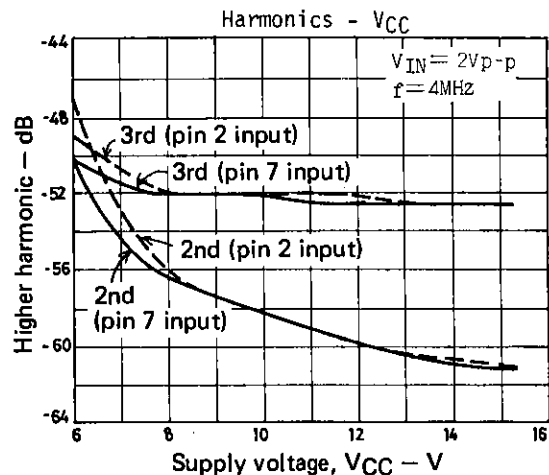
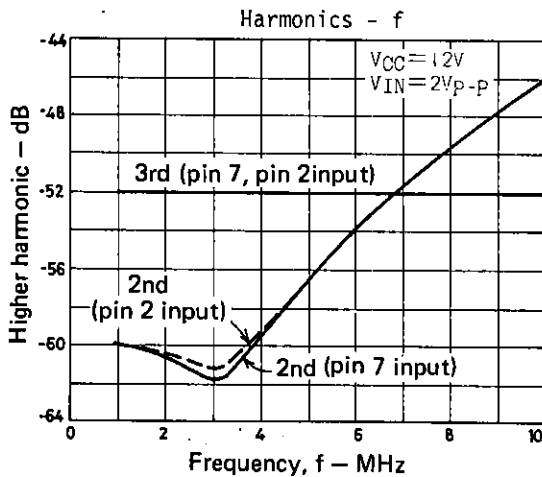
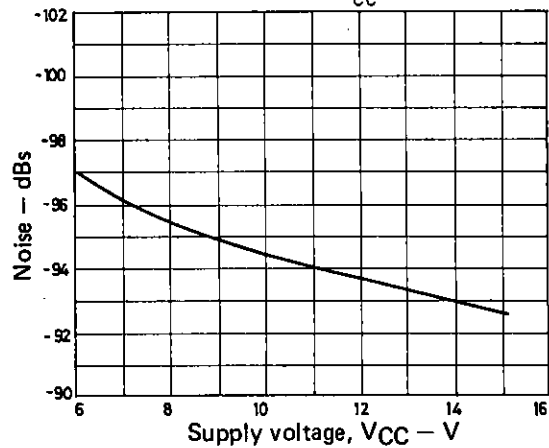
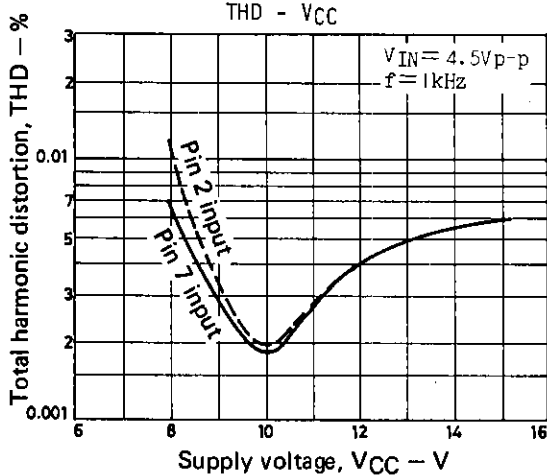
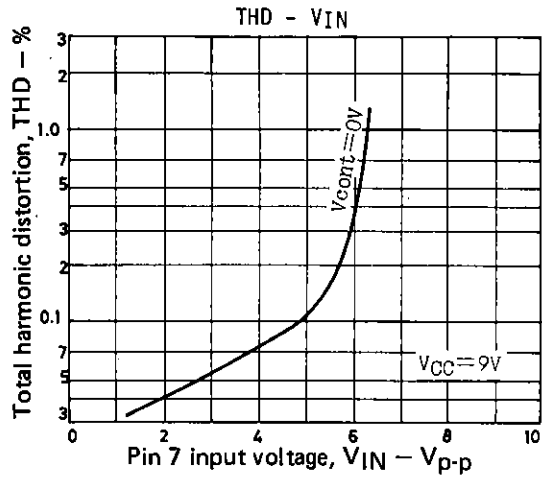
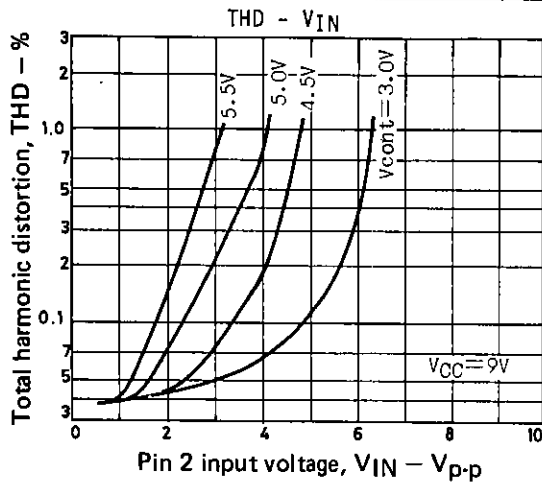
Unit (resistance: Ω , capacitance: F)

Item	Symbol	SW mode			Test point
		SW1	SW2	SW3	
Circuit current	I_D	c	c	c	A ₁
Distortion (1)	THD	b	b	c	V ₄
Distortion (2)	THD	a	c	b	V ₄
Noise (1)	e_n	b	c	c	V ₄
Noise (2)	e_n	a	c	c	V ₄
Crosstalk (1)	I_{S1}	b	c	a	V ₄
Crosstalk (2)	I_{S2}	a	a	c	V ₄
Pedestal	ΔV_{PED}	a~b	c	c	V ₁
Pin voltage (pin 4)		b	c	c	V ₁
Pin voltage (pin 7)		b	c	c	V ₂
Pin voltage (pin 7)		a	c	c	V ₂
Pin voltage (pin 2)		a	c	c	V ₃
Pin voltage (pin 2)		b	c	c	V ₃

Main Characteristics



LA7016



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