

<b>SANYO</b>	No.1052A	<b>LA7016</b>
	VCR Electronic Switch	

**Features**

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

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

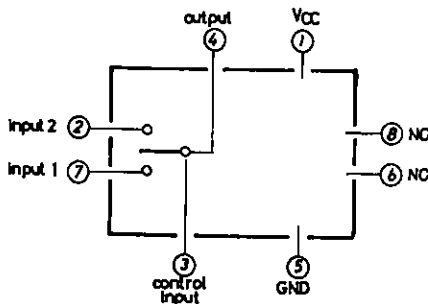
			unit
Maximum supply voltage	$V_{CC}$ max	15	V
Allowable power dissipation	$P_D$ max	$T_a \leq 65^\circ\text{C}$ 300	mW
Operating Temperature	$T_{opr}$	-20 to +65	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +125	$^\circ\text{C}$

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

		min	typ	max	unit		
Circuit current	$I_D$		9.3	12.5	mA		
Total Harmonic distortion	THD	* $R_g=600\Omega$ , $4.5\text{V}_{p-p}$ , $f=1\text{kHz}$ , $R_L=\infty$		0.007	0.1	%	
Noise	$e_n$	* $R_g=600\Omega$ , $f=20\text{Hz}$ to $20\text{kHz}$ , $R_L=\infty$		-93	-80	dBs	
Crosstalk	$I_{s1}$	* Input A: $R_g=50\Omega$ , $f=3.58\text{MHz}$ , $2\text{V}_{p-p}$ , Input B: $R_g=1\text{k}\Omega$		50	68	dB	
Pedestal	$\Delta V_{ped}$	$V_3=2.2\text{V}$ to $3.0\text{V}$		-100	0	+100	mV
Second harmonic		$R_g=50\Omega$ , $f=1\text{MHz}$ , $4.0\text{V}_{p-p}$ , $R_L=\infty$		46	55		dB
Third harmonic		$R_g=50\Omega$ , $f=1\text{MHz}$ , $4.0\text{V}_{p-p}$ , $R_L=\infty$		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.

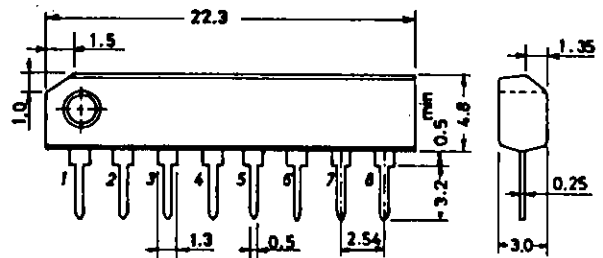
**Equivalent Circuit Block Diagram**



**Package Dimensions**

(unit : mm)

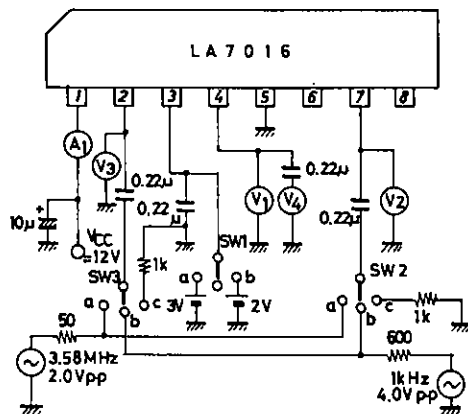
3016B



SANYO : SIP8

# LA7016

## Test Circuit

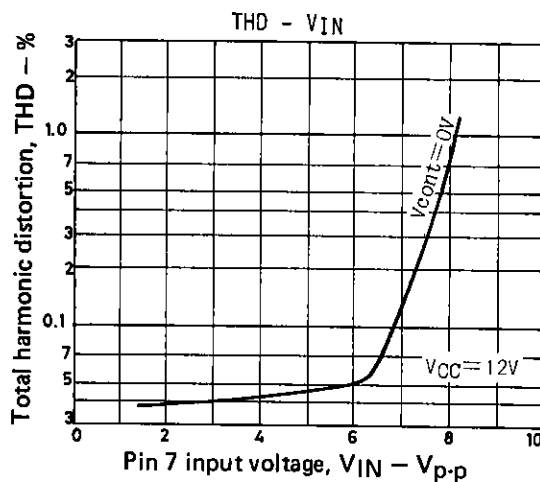
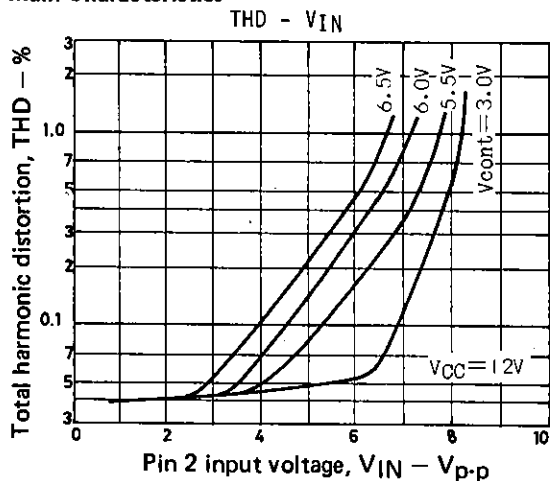


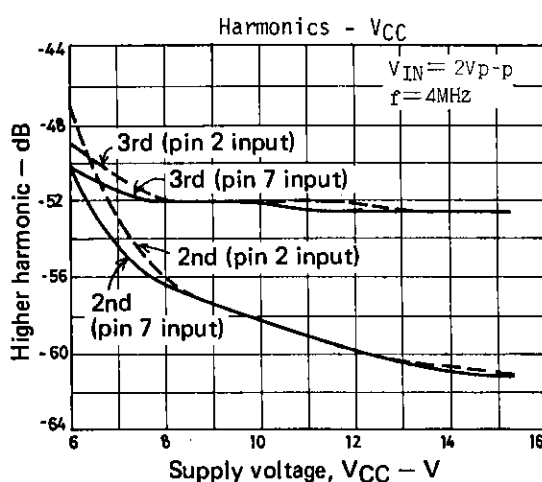
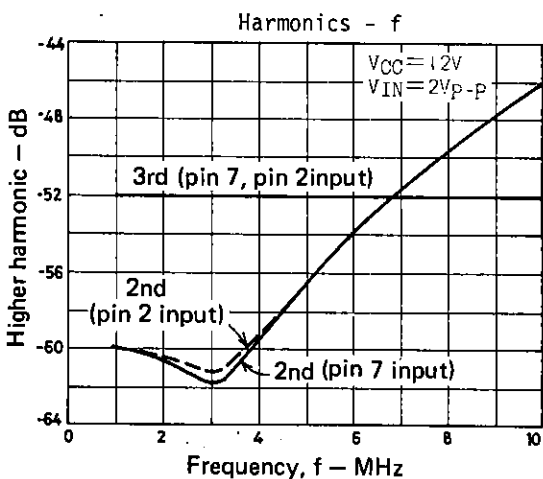
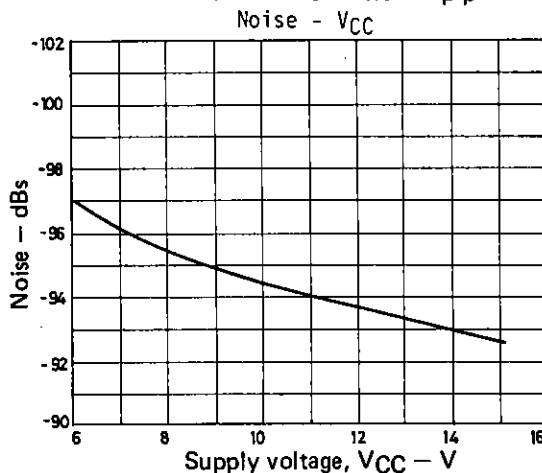
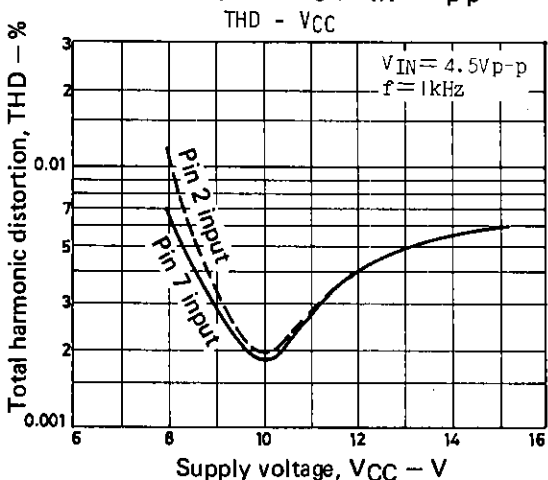
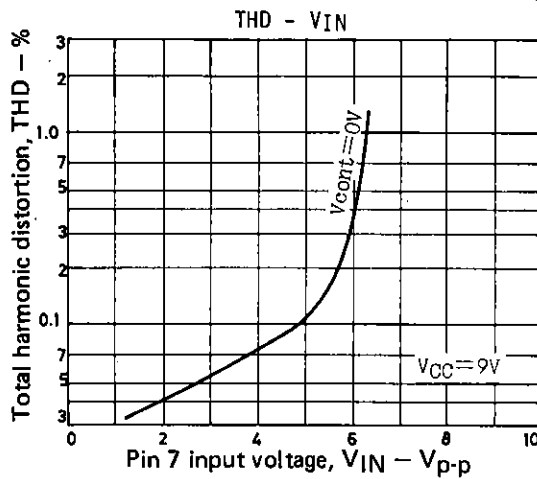
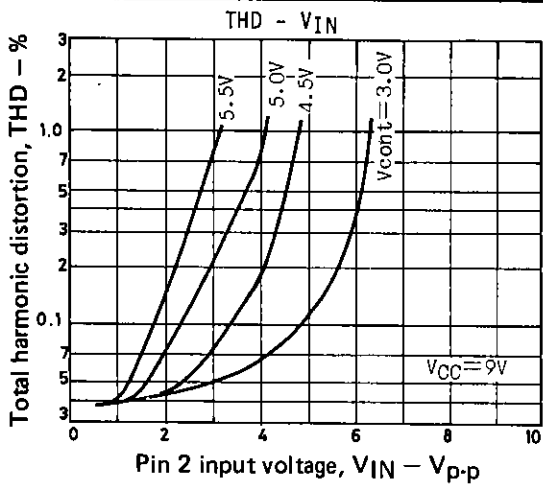
## Test Conditions

Unit (resistance:Ω, capacitance:F)

Item	Symbol	SW mode			Test point
		SW1	SW2	SW3	
Circuit current	$I_D$	c	c	c	A <sub>1</sub>
Distortion (1)	THD	b	b	c	V <sub>4</sub>
Distortion (2)	THD	a	c	b	V <sub>4</sub>
Noise (1)	$e_n$	b	c	c	V <sub>4</sub>
Noise (2)	$e_n$	a	c	c	V <sub>4</sub>
Crosstalk (1)	$I_{S1}$	b	c	a	V <sub>4</sub>
Crosstalk (2)	$I_{S2}$	a	a	c	V <sub>4</sub>
Pedestal	$\Delta V_{PED}$	a-b	c	c	V <sub>1</sub>
Pin voltage (pin 4)		b	c	c	V <sub>1</sub>
Pin voltage (pin 7)		b	c	c	V <sub>2</sub>
Pin voltage (pin 7)		a	c	c	V <sub>2</sub>
Pin voltage (pin 2)		a	c	c	V <sub>3</sub>
Pin voltage (pin 2)		b	c	c	V <sub>3</sub>

## Main Characteristics





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