

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

**Features**

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

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

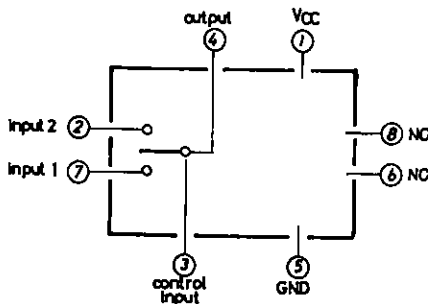
			unit
Maximum supply voltage	$V_{CC}$ max	15	V
Allowable power dissipation	$P_d$ max	$T_a \leq 65^\circ\text{C}$ 300	mW
Operating Temperature	$T_{opr}$	-20 to +65	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-40 to +125	$^\circ\text{C}$

**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	* $R_g=600\Omega$ , $4.5V_{p-p}$ , $f=1\text{kHz}$ , $R_L=\infty$		0.007	0.1	%
Noise	$e_n$	* $R_g=600\Omega$ , $f=20\text{Hz}$ to $20\text{kHz}$ , $R_L=\infty$		-93	-80	dBs
Crosstalk	$I_{s1}$	* Input A: $R_g=50\Omega$ , $f=3.58\text{MHz}$ , $2V_{p-p}$ , Input B: $R_g=1k\Omega$	50	68		dB
Pedestal	$\Delta V_{ped}$	$V_3=2.2\text{V}$ to $3.0\text{V}$	-100	0	+100	mV
Second harmonic		$R_g=50\Omega$ , $f=1\text{MHz}$ , $4.0V_{p-p}$ , $R_L=\infty$	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.

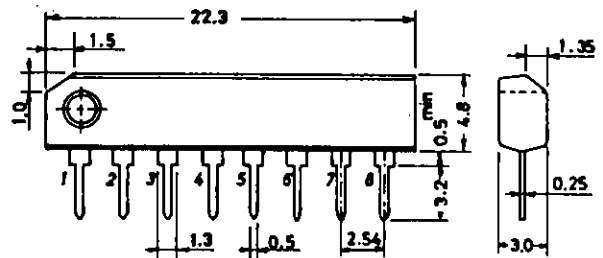
**Equivalent Circuit Block Diagram**



**Package Dimensions**

(unit : mm)

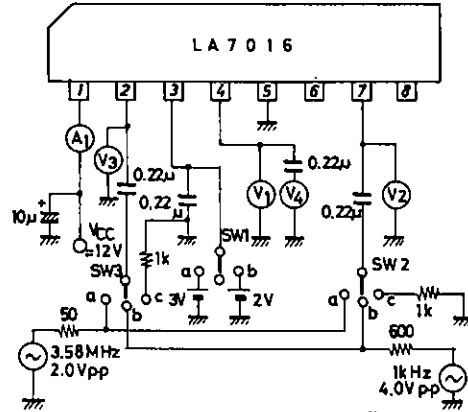
3016B



SANYO : SIP8

# LA7016

## Test Circuit

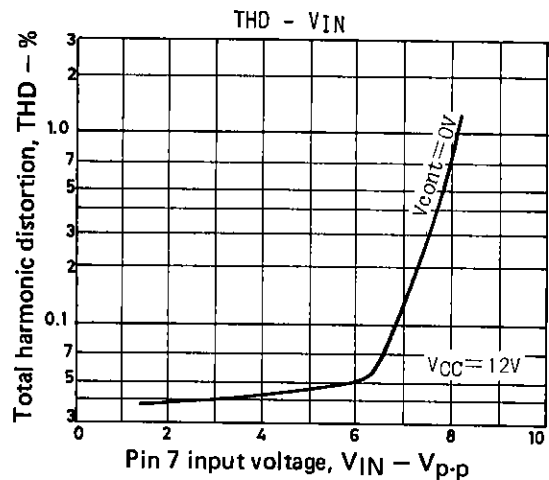
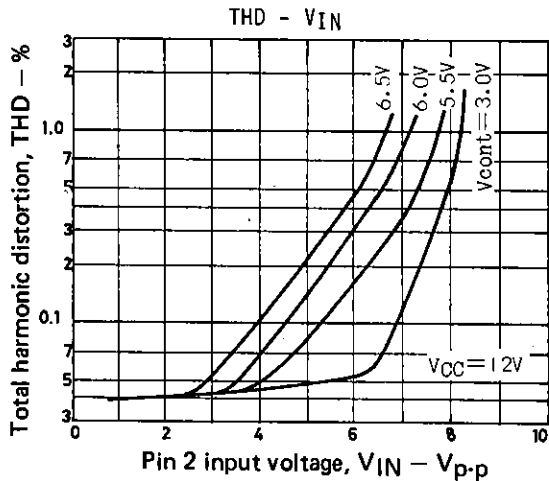


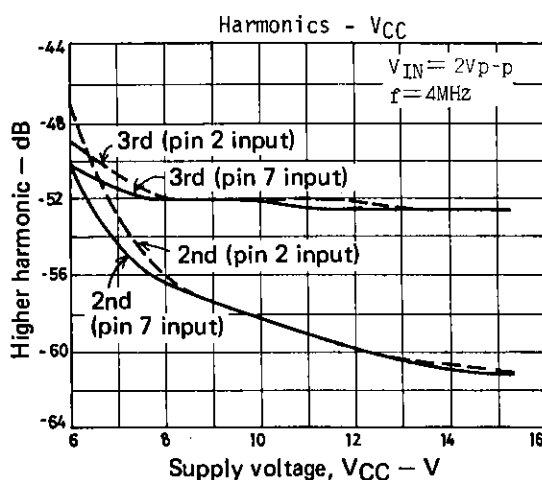
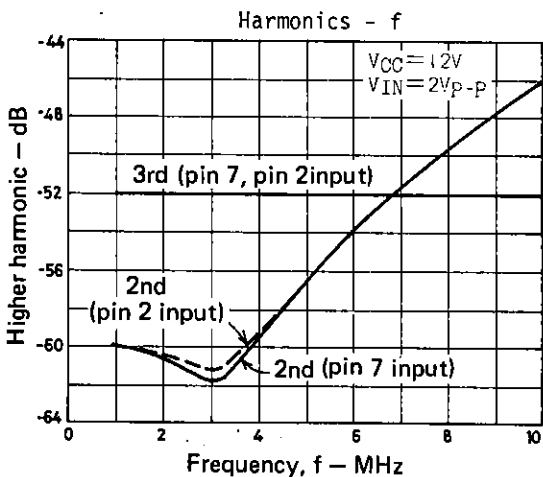
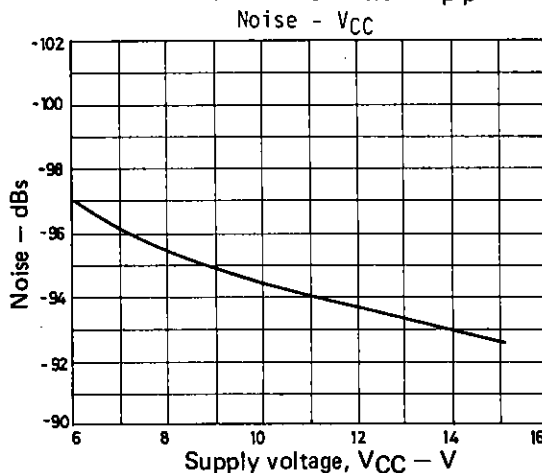
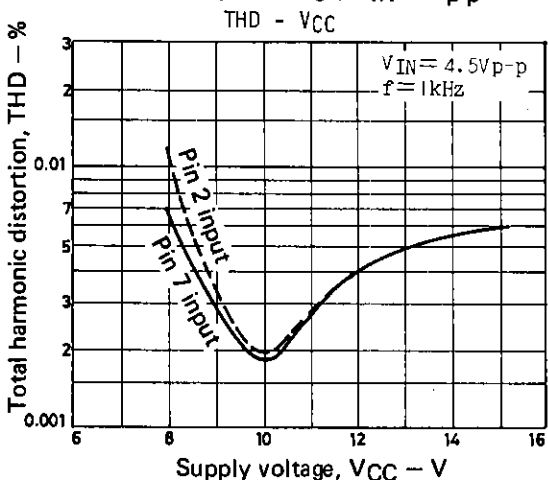
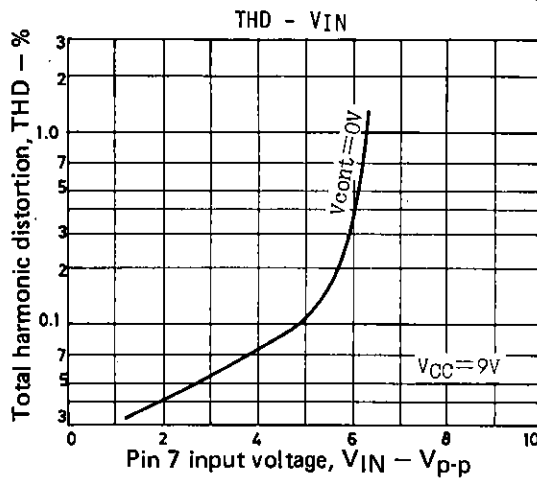
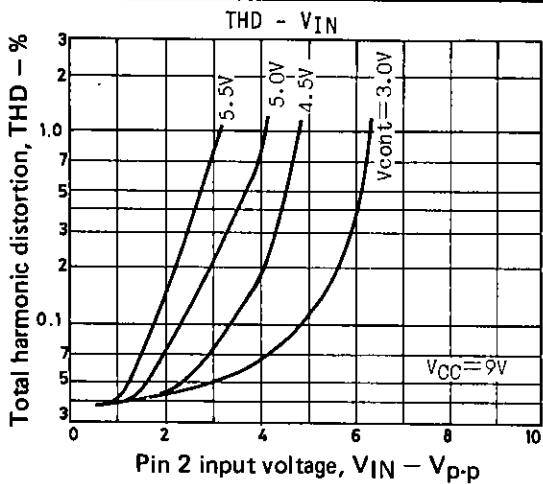
## Test Conditions

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





■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of December, 1996. Specifications and information herein are subject to change without notice.