

**SANYO**

No.1053B

**LA7018**

Monolithic Linear IC

Electronic Switch  
for Use in VTR Applications

**Features**

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

**Maximum Ratings/T<sub>a</sub>=25°C**

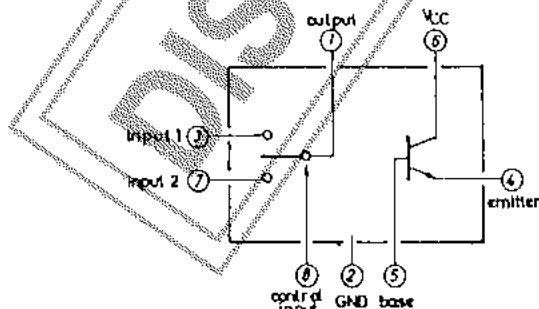
Maximum supply voltage	V <sub>CC</sub> max	15	unit
Allowable power dissipation	P <sub>d</sub> max	300	mW
Operating Temperature	T <sub>opg</sub>	-20 to +65	°C
Storage temperature	T <sub>stg</sub>	-40 to +125	°C

**Operation Characteristics/T<sub>a</sub>=25°C, V<sub>CC</sub>=12V**

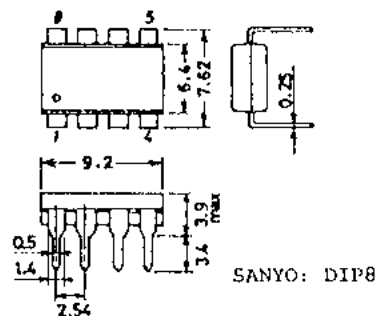
		min	typ	max	unit	
Circuit current	I <sub>D</sub>		9.3	12.5	mA	
Total harmonic distortion	THD	*R <sub>g</sub> =600Ω, 4.5V <sub>p-p</sub> , f=1kHz, R <sub>L</sub> =∞	0.007	0.1	%	
Noise	e <sub>n</sub>	*R <sub>g</sub> =600Ω, f=20Hz to 20kHz, R <sub>L</sub> =∞	-93	-80	dBs	
Crosstalk	I <sub>s1</sub>	*Input A: R <sub>g</sub> =50Ω, f=3.58MHz, 2V <sub>p-p</sub> , Input B: R <sub>g</sub> =1kΩ	46	60	dB	
Pedestal	ΔV <sub>ped</sub>	V <sub>g</sub> =2.2V to 3.0V	-100	0	+100	mV
Second harmonic		R <sub>g</sub> =50Ω, f=1MHz, 4.0V <sub>p-p</sub> , R <sub>L</sub> =∞	46	55	dB	
Third harmonic		R <sub>g</sub> =50Ω, f=1MHz, 4.0V <sub>p-p</sub> , R <sub>L</sub> =∞	46	52	dB	
Control, threshold voltage	V <sub>8s</sub>		2.2	2.6	3.0	V
Pin voltage (pin 4)	V <sub>1</sub>		6.9			V
Pin voltage (pin 7)	V <sub>3</sub>	V <sub>3</sub> =2.2V	7.6			V
Pin voltage (pin 7)	V <sub>3</sub>	V <sub>3</sub> =3.0V	7.6			V
Pin voltage (pin 2)	V <sub>7</sub>	V <sub>3</sub> =3.0V	7.6			V
Pin voltage (pin 2)	V <sub>7</sub>	V <sub>3</sub> =2.2V	7.6			V
Pin current	I <sub>5</sub>		60	130	μA	

Note) \*: Test for input 1 and input 2.  
For input 1 test, V<sub>cont</sub> (pin 8 voltage) is 2.0V.  
For input 2 test, V<sub>cont</sub> is 3.0V.

**Equivalent Circuit Block Diagram**



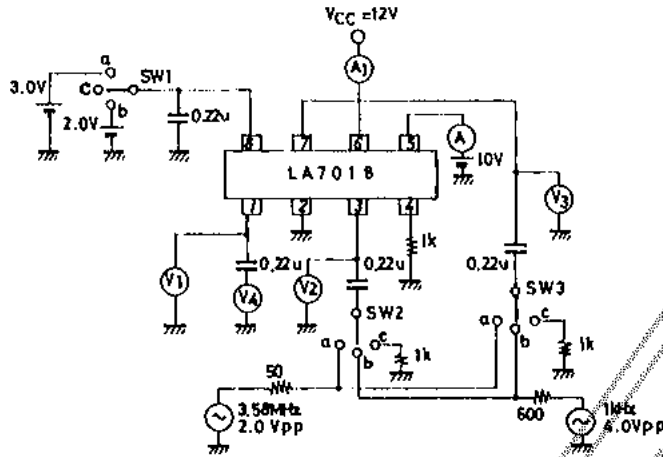
**Case Outline 3001A-D8IC (unit:mm)**



Specifications and information herein are subject to change without notice.

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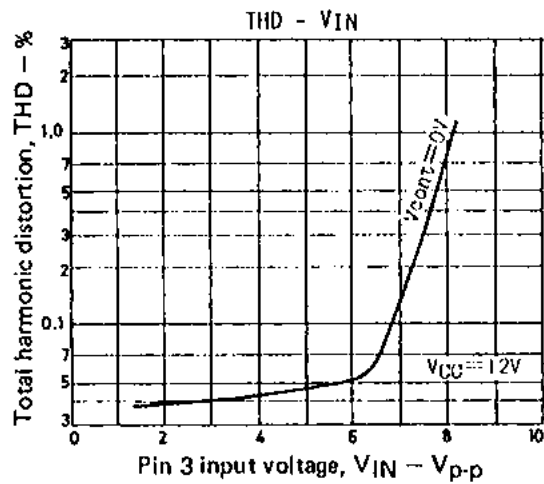
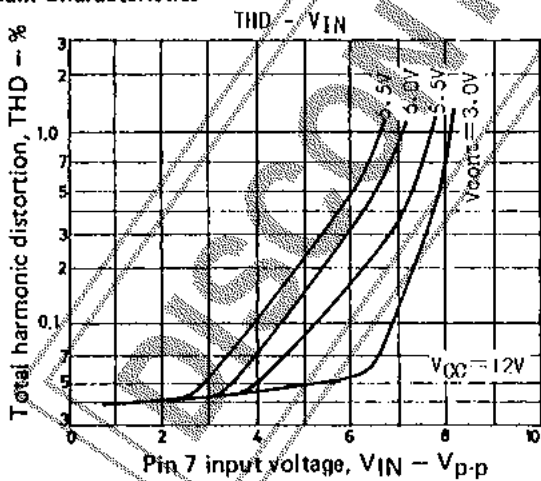
Test Circuit

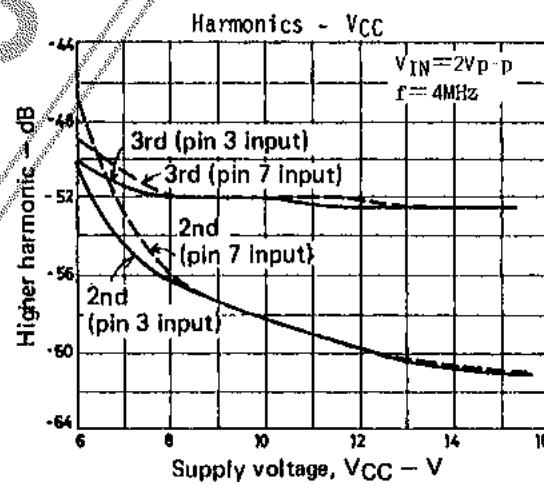
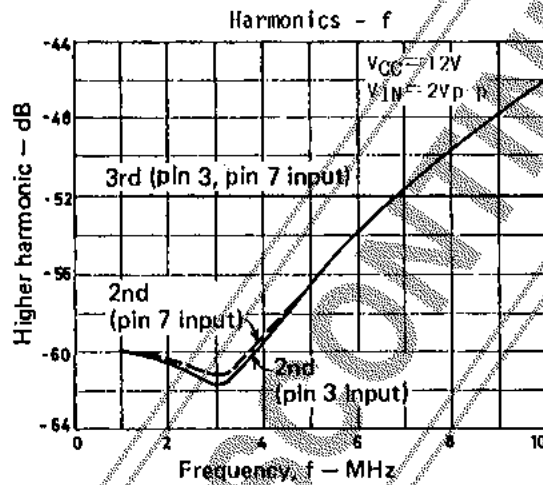
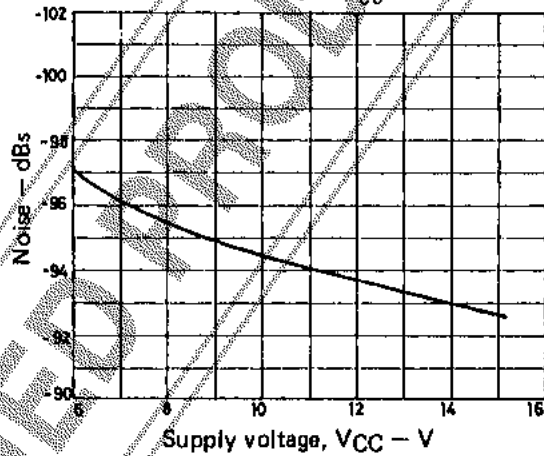
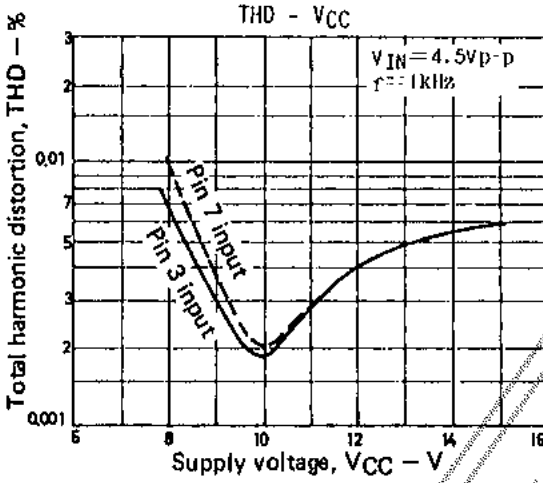
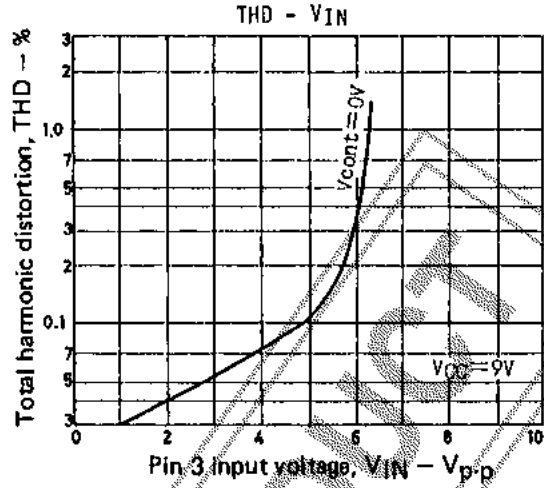
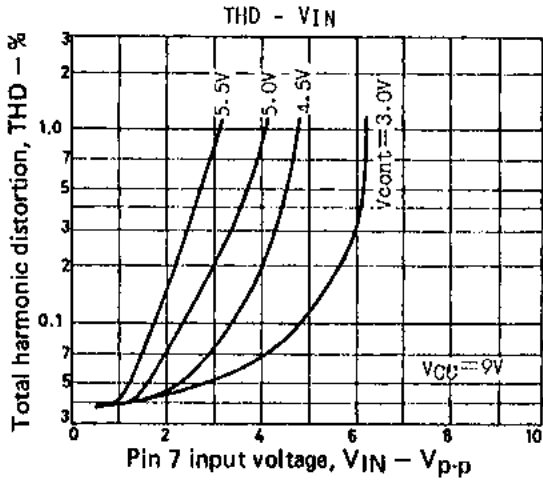


Test Conditions

Item	Symbol	SW mode			Test point
		SW1	SW2	SW3	
Circuit current	$I_{ij}$	c	c	c	A1
Distortion (1)	THD	b	b	c	V4
Distortion (2)	THD	a	c	b	V4
Noise (1)	$e_n$	b	c	c	V4
Noise (2)	$e_n$	a	c	c	V4
Crosstalk (1)	$I_{B1}$	b	c	a	V4
Crosstalk (2)	$I_{B2}$	a	c	c	V4
Pedestal	$\Delta V_{PED}$	a-b	c	c	V1
Pin voltage (pin 1)		b	c	c	V1
Pin voltage (pin 3)		b	c	c	V2
Pin voltage (pin 3)		a	c	c	V2
Pin voltage (pin 7)		a	c	c	V3
Pin voltage (pin 7)		b	c	c	V3

Main Characteristics





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