

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

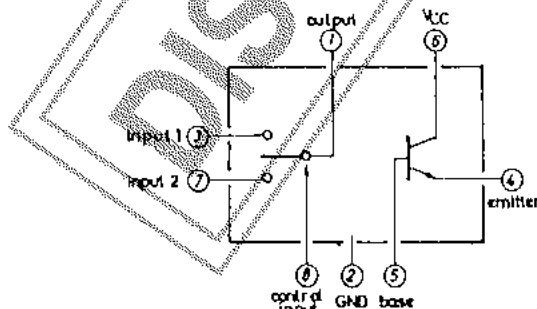
Maximum supply voltage	V_{CC} max	15	unit
Allowable power dissipation	P_d max	300	mW
Operating Temperature	T_{opg}	-20 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

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

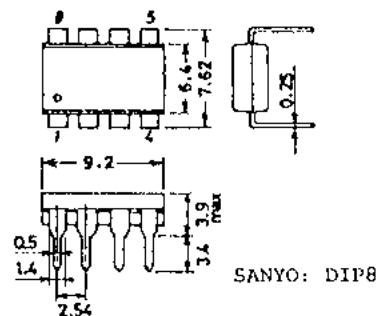
		min	typ	max	unit		
Circuit current	I_D		9.3	12.5	mA		
Total harmonic distortion	THD	* $R_g=600\Omega$, 4.5V_{p-p} , $f=1\text{kHz}$, $R_L=\infty$		0.007	0.1	%	
Noise	e_n	* $R_g=600\Omega$, $f=20\text{Hz}$ to 20kHz , $R_L=\infty$		-93	-80	dBs	
Crosstalk	I_{s1}	*Input A: $R_g=50\Omega$, $f=3.58\text{MHz}$, 2V_{p-p} , Input B: $R_g=1\text{k}\Omega$, $V_g=2.2\text{V}$ to 3.0V		46	60	dB	
Pedestal	ΔV_{ped}	$R_g=50\Omega$, $f=1\text{MHz}$, 4.0V_{p-p} , $R_L=\infty$		-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_{8s}		2.2	2.6	3.0	V	
Pin voltage (pin 4)	V_1			6.9		V	
Pin voltage (pin 7)	V_3	$V_3=2.2\text{V}$		7.6		V	
Pin voltage (pin 7)	V_3	$V_3=3.0\text{V}$		7.6		V	
Pin voltage (pin 2)	V_7	$V_3=3.0\text{V}$		7.6		V	
Pin voltage (pin 2)	V_7	$V_3=2.2\text{V}$		7.6		V	
Pin current	I_5		60	130		μA	

Note) *: Test for input 1 and input 2.
For input 1 test, V_{cont} (pin 8 voltage) is 2.0V.
For input 2 test, V_{cont} is 3.0V.

Equivalent Circuit Block Diagram



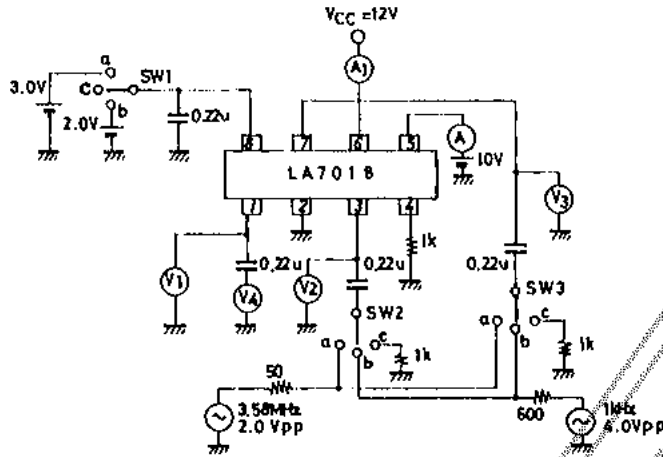
Case Outline 3001A-D8IC
(unit:mm)



Specifications and information herein are subject to change without notice.

SANYO Electric Co., Ltd. Semiconductor Overseas Marketing Div.
Natsume Bldg., 18-6, 2-chome, Yushima, Bunkyo-ku, TOKYO 113 JAPAN

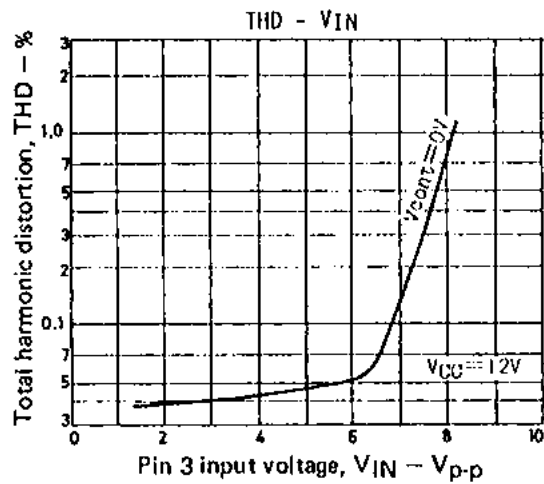
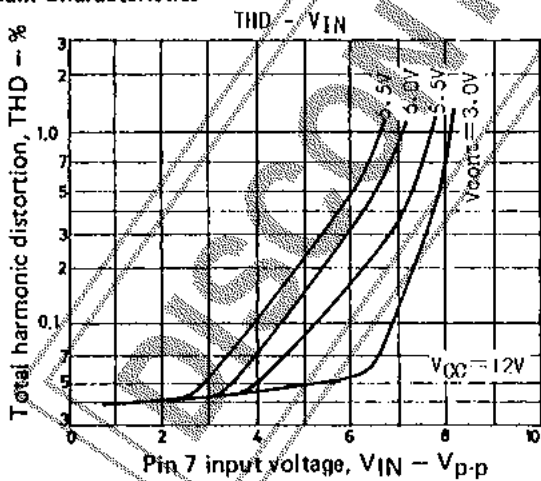
Test Circuit

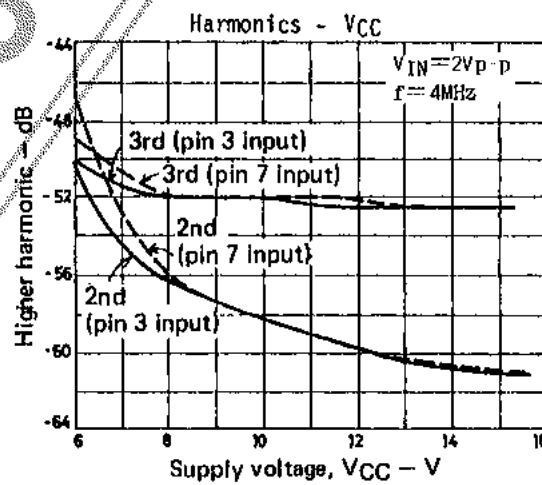
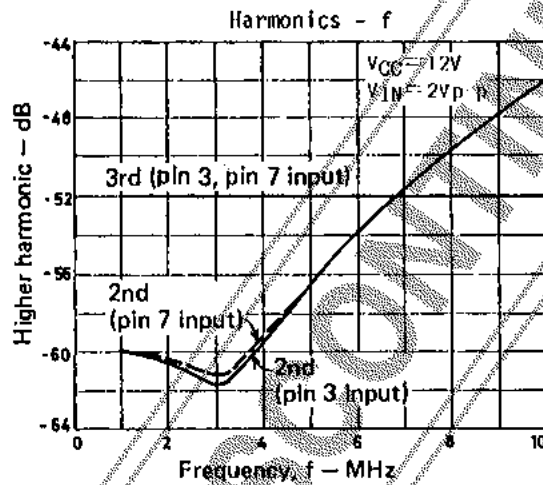
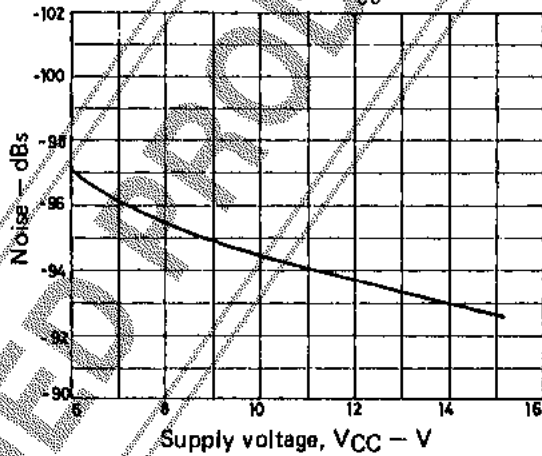
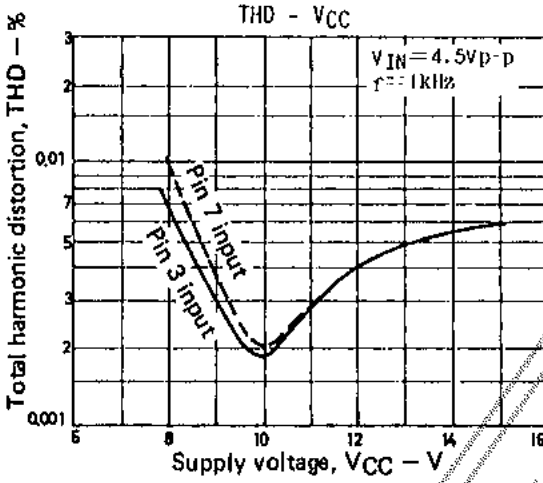
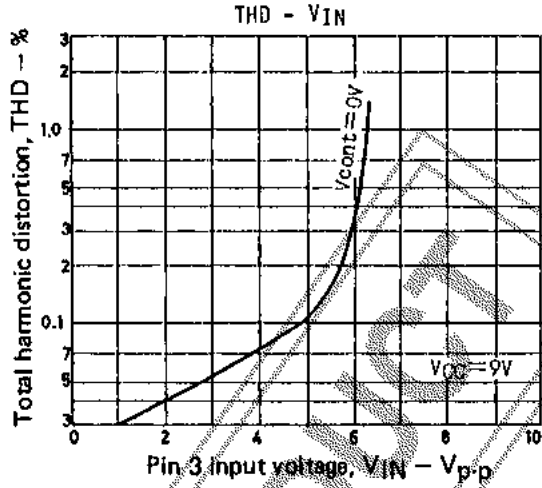
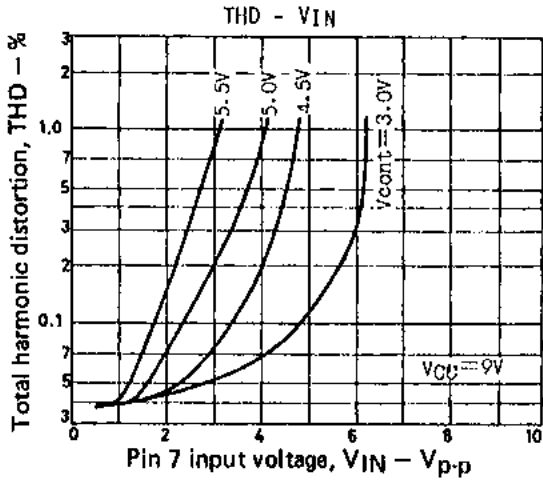


Test Conditions

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	ΔV_{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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