



SANYO Semiconductors

DATA SHEET

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°C

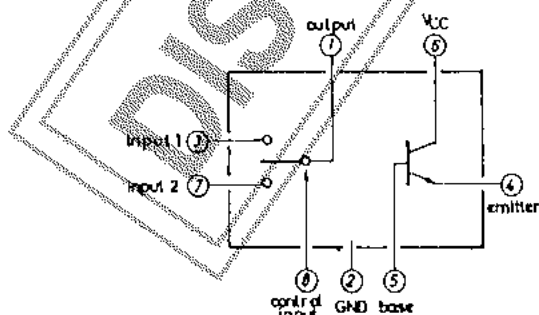
Parameter	Symbol	Value	Unit
Maximum supply voltage	V _{CC} max	15	V
Allowable power dissipation	P _d max	300	mW
Operating Temperature	T _{opg}	-20 to +65	°C
Storage temperature	T _{stg}	-40 to +125	°C

Operation Characteristics/T_a=25°C, V_{CC}=12V

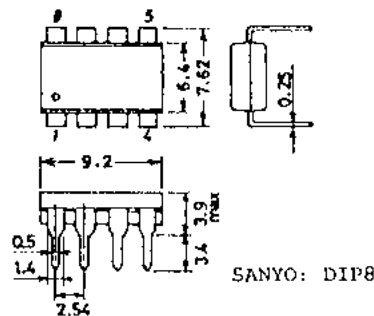
Parameter	Symbol	Conditions	min	typ	max	unit
Circuit current	I _D			9.3	12.5	mA
Total harmonic distortion	THD	*R _g =600Ω, 4.5V _{p-p} , f=1kHz, R _L =∞		0.007	0.1	%
Noise	e _n	*R _g =600Ω, f=20Hz to 20kHz, R _L =∞		-93	-80	dBs
Crosstalk	I _{s1}	*Input A: R _g =50Ω, f=3.58MHz, 2V _{p-p} , Input B: R _g =1kΩ, 2V _{p-p} , V _g =2.2V to 3.0V	46	60		dB
Pedestal	ΔV _{ped}	V _g =2.2V to 3.0V	-100	0	+100	mV
Second harmonic		R _g =50Ω, f=1MHz, 4.0V _{p-p} , R _L =∞	46	55		dB
Third harmonic		R _g =50Ω, f=1MHz, 4.0V _{p-p} , R _L =∞	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 =2.2V		7.6		V
Pin voltage (pin 7)	V ₃	V ₃ =3.0V		7.6		V
Pin voltage (pin 2)	V ₇	V ₃ =3.0V		7.6		V
Pin voltage (pin 2)	V ₇	V ₃ =2.2V		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)

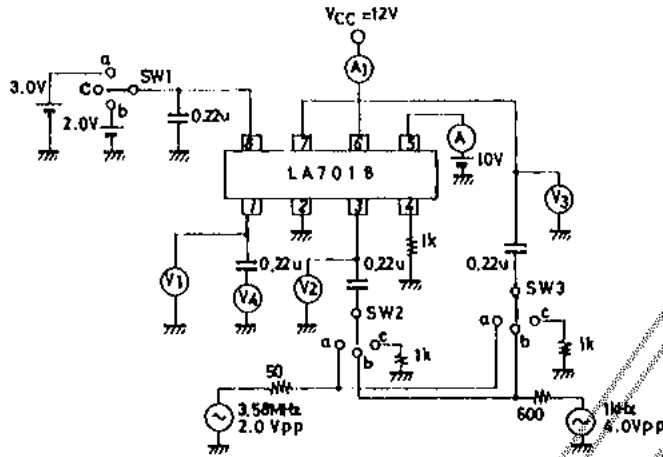


Specifications and information herein are subject to change without notice.

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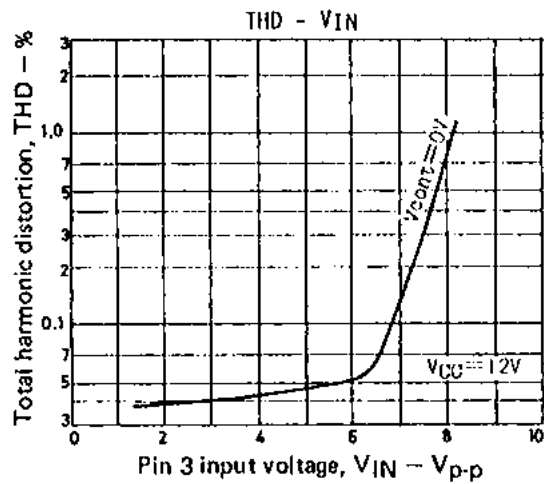
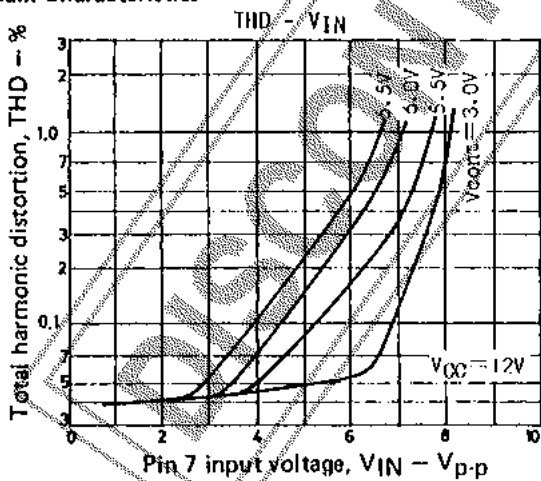
Test Circuit

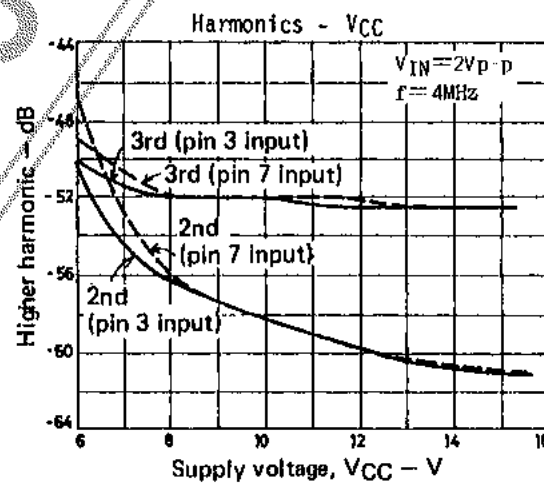
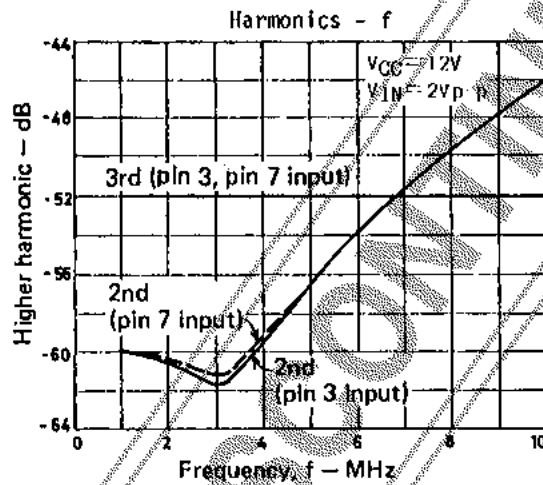
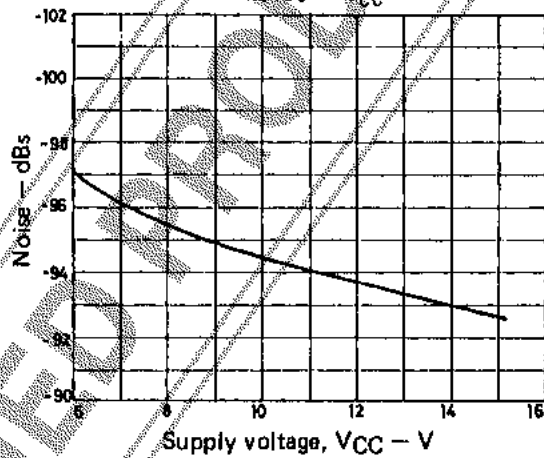
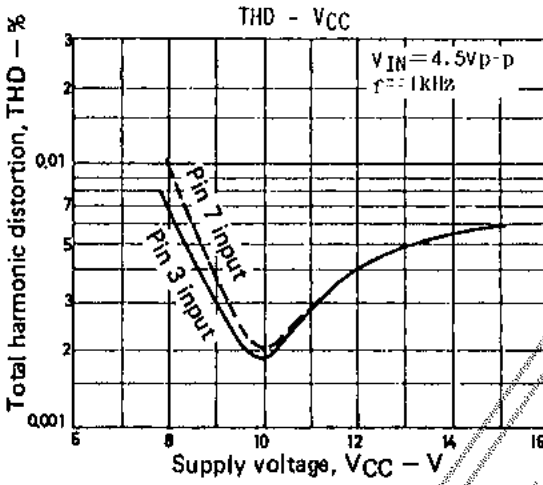
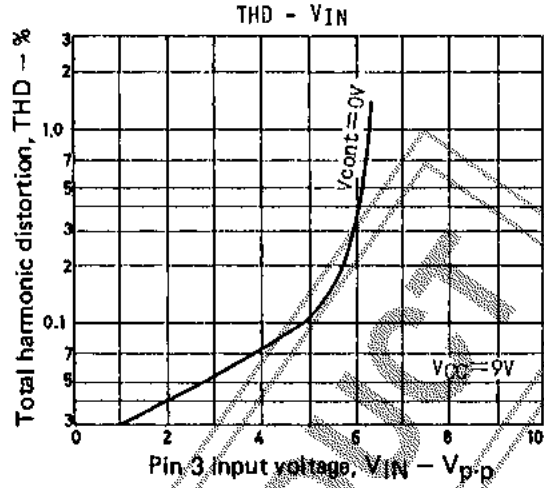
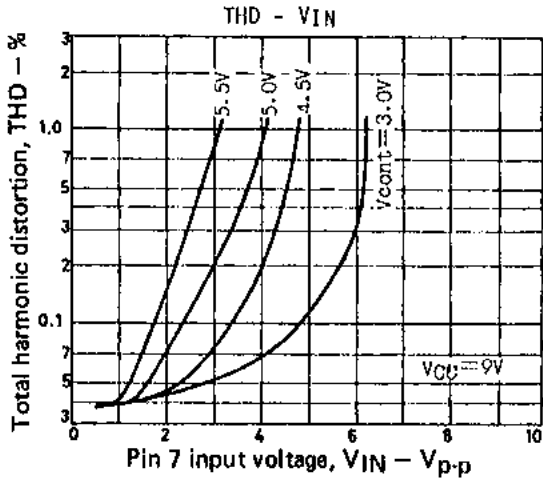


Test Conditions

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	ΔV_{PED}	a-b	c	c	V1
Pin voltage (pin 1)		b	c	c	V1
Pin voltage (pin 3)		b	c	a	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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