

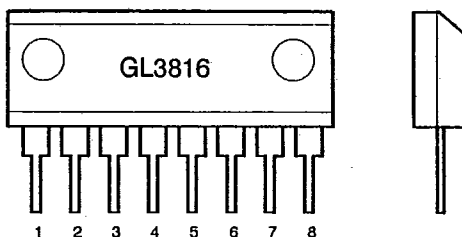
T-51-11

GL3816
ELECTRONIC SWITCH

Features

- Adjust to Switching of Large Signal
- Low Distortion
- Good Frequency Characteristic
- Wide Input Dynamic Range

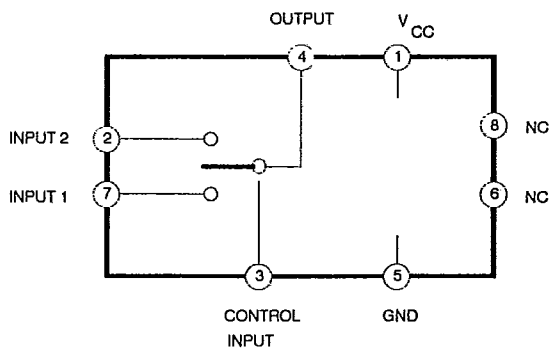
Pin Configuration



Maximum Ratings (T_A = 25°C)

No.	Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
1	Supply Voltage	V _{CC} max				15	V
2	Allowable Power Consumption	P _D max	T _A ≤ 85°C			300	mW
3	Operating Temperature	T _{OPG}		-20		65	°C
4	Storage Temperature	T _{STG}		-40		125	°C

Block Diagram



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Electrical Characteristics ($T_A = 25^\circ\text{C}$, $V_{CC} = 12\text{V}$)

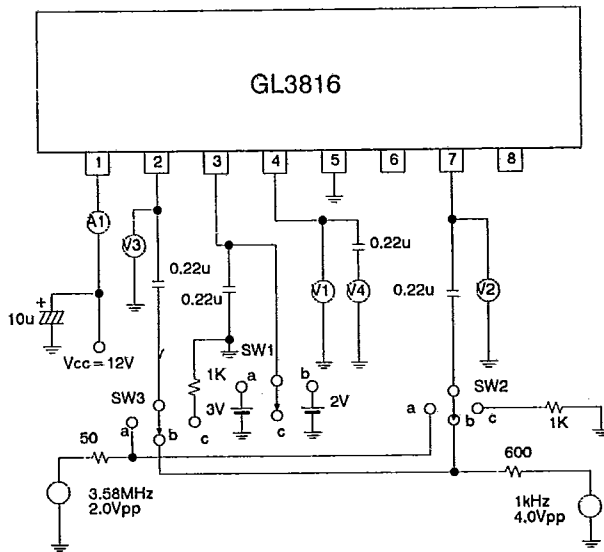
No.	Item	Symbol	Condition	Min.	Typ.	Max.	Unit
1	Supply Current	I_{CC}		7.5	9.3	12.5	mA
2	Pin DC Voltage	V4			6.9		V
3	Pin DC Voltage	V7	V3 = 2.0V V3 = 3.0V		7.6 7.6		V
4	Pin DC Voltage	V2	V3 = 2.0V V3 = 3.0V		7.6 7.6		V
5	Control Threshold Voltage	V_{TH}		2.2	2.6	3.0	V
6	Total Harmonic Distortion	THD	* $R_g = 600\Omega$, 4.5Vp-p, $f = 1\text{kHz}$, $R_L = \text{inf}$.	-	0.007	0.1	%
7	Noise	e_n	* $R_L = \text{inf}$.	-	-93	-80	dBs
8	Crosstalk	I_s	*Input A : $R_g = 50\Omega$, $f = 3.58\text{MHz}$, 2Vp-p Input B : $R_g = 1\text{K}\Omega$	50	68		dB
9	Pedestal	V_{PED}	V3 = 2.0V ~ 3.0V	-100	0	+100	mV
10	Second Harmonic	$V^{(2)}$	$R_g = 50\Omega$, $f = 1\text{MHz}$, 4.0Vp-p, $R_L = \text{inf}$	46	55	-	dB
11	Third Harmonic	$V^{(3)}$	$R_g = 50\Omega$, $f = 1\text{MHz}$, 4.0Vp-p, $R_L = \text{inf}$	46	52	-	dB

Remarks : * Measure with input 1 and input 2 respectively

when measured by input 1, V3 = 2.0V

when measured by input 2, V3 = 3.0V

Test Circuit

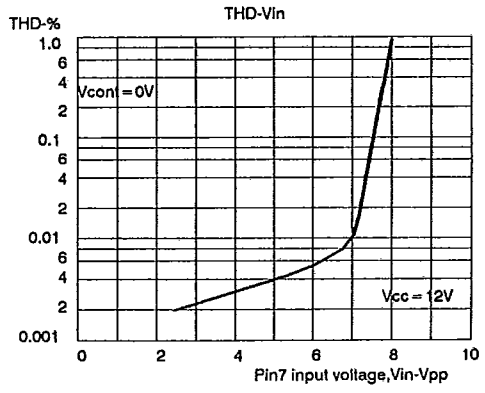
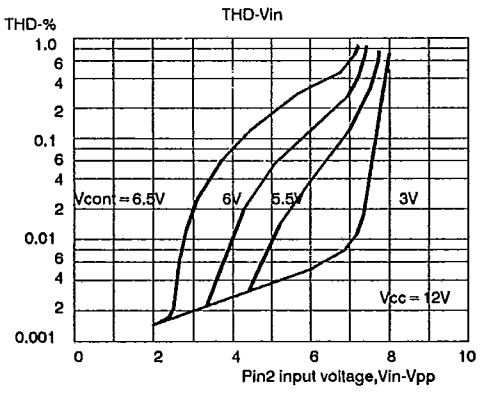


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Test Condition

Item	Symbol	SW1	SW2	SW3	Test Point
Circuit Current	I_{CC}	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)	Is_1	b	c	a	V4
Crosstalk(2)	Is_2	a	a	c	V4
Pedestal	V_{PED}	a-b	c	c	V1
Pin Voltage(pin4)	V4	c	c	c	V1
Pin Voltage(pin7)	V7	b	c	c	V2
Pin Voltage(pin7)	V7	a	c	c	V2
Pin Voltage(pin2)	V2	b	c	c	V3
Pin Voltage(pin2)	V2	a	c	c	V3

Typical Performance Curves



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