

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Power supply voltage	V _{DD}	- 0.5 ~ + 20	V
Power dissipation	P _d	1000 (DIP) , 450 (SOP) 350 (SSOP)	mW
Operating temperature	T _{opr}	- 40 ~ + 85	°C
Storage temperature	T _{stg}	- 55 ~ + 150	°C
Input voltage	V _{IN}	- 0.5 ~ V _{DD} + 0.5	V

●Electrical characteristics

DC characteristics (unless otherwise noted, Ta = 25°C, V_{SS} = 0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	V _{DD} (V)	Conditions	Measurement circuit
Input high-level voltage	V _{IH}	3.5	—	—	V	5	—	Fig. 1
		7.0	—	—		10		
		11.0	—	—		15		
Input low-level voltage	V _{IL}	—	—	1.5	V	5	—	Fig. 1
		—	—	3.0		10		
		—	—	3.75		15		
Input high-level current	I _{IH}	—	—	0.3	μA	15	V _{IH} = 15V	Fig. 1
Input low-level current	I _{IL}	—	—	- 0.3	μA	15	V _{IL} = 0V	Fig. 1
ON resistance	R _{ON}	—	150	600	Ω	5	V _{IN} = 0.25V, R _L = 10kΩ	Fig. 1
		—	500	950		5	V _{IN} = 2.5V, R _L = 10kΩ	
		—	200	600		5	V _{IN} = 5V, R _L = 10kΩ	
		—	230	500		10	V _{IN} = 5V, R _L = 10kΩ	
		—	180	280		15	V _{IN} = 7.5V, R _L = 10kΩ	
ON resistance deflexion	ΔR _{ON}	—	25	—	Ω	5	V _I = V _{DD} / 2 R _L = 10kΩ	Fig. 1
		—	10	—		10		
		—	5	—		15		
OFF-channel leakage current	I _{OFF}	—	—	0.3	μA	15	V _{IN} = 15V, V _{OUT} = 0V	Fig. 1
		—	—	- 0.3		15	V _{IN} = 0V, V _{OUT} = 15V	
Static current dissipation	I _{DD}	—	—	1.0	μA	5	V _I = V _{DD} or GND	—
		—	—	2.0		10		
		—	—	4.0		15		
Input capacitance (control input)	C _C	—	8	—	pF	—	f = 1MHz	—
Input capacitance (switch input)	C _S	—	10	—	pF	—	f = 1MHz	—

●Electrical characteristics

Switching characteristics (unless otherwise noted, Ta = 25°C, CL = 50pF)

Parameter	Symbol	Min.	Typ.	Max.	Unit	VDD (V)	Conditions	Measurement circuit
						5		
Propagation delay time SW IN→OUT	tPLH	—	20	50	ns	5	RL = 10kΩ	Fig.2
	tPHL	—	12	40		10		
	tPHL	—	10	30		15		
Propagation delay time CONT→OUT	tPHZ	—	40	90	ns	5	Output "H", "L" → "High-Z" RL = 1kΩ	Fig.2
	tPLZ	—	35	80		10		
	tPLZ	—	30	70		15		
Propagation delay time CONT→OUT	tPZH	—	60	140	ns	5	Output "High-Z" → "H", "L" RL = 1kΩ	Fig.2
	tPZL	—	20	50		10		
	tPZL	—	15	40		15		
Feedthrough attenuation	FT	—	0.7	—	MHz	5	VSS = -5V, RL = 10kΩ *1	Fig.2
Sine wave distortion	D	—	0.1	—	%	5	VSS = -5V, RL = 10kΩ *2	Fig.2
Crosstalk (CONT→OUT)	CTc	—	—	600	mVp-p	5	VSS = -5V, RL = 10kΩ f = 1MHz	Fig.2
Crosstalk (2) between channels	CT	—	1	—	MHz	5	VSS = -5V, RL = 10kΩ *1	Fig.2

*1 VIN: 5VP-P sine wave, frequency that enables $\frac{V_{OUT}}{V_{IN}} - 50\text{dB}$ at channel off.

*2 VIN: 5VP-P sine wave.

●Measurement circuits

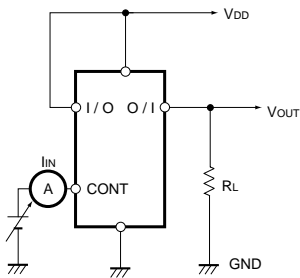


Fig. 1 (a) Input voltage, current

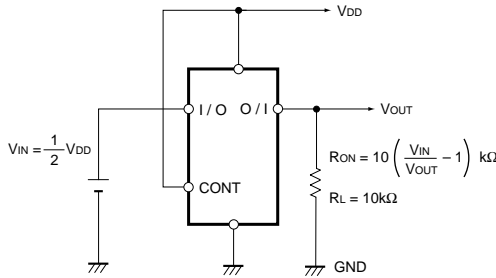


Fig. 1 (b) On resistance

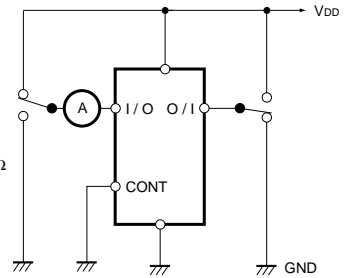


Fig. 1 (c) Channel off leakage current

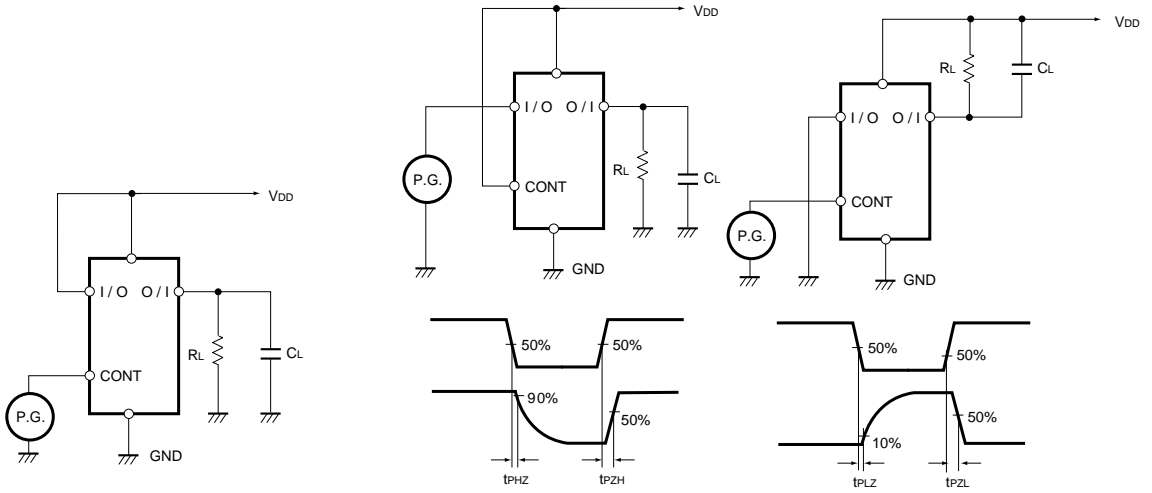


Fig. 2 (a) Propagation delay time (IN to OUT) Fig. 2 (b) Propagation delay time (CONT to OUT)

Fig. 2 (c) Propagation delay time (CONT to OUT)

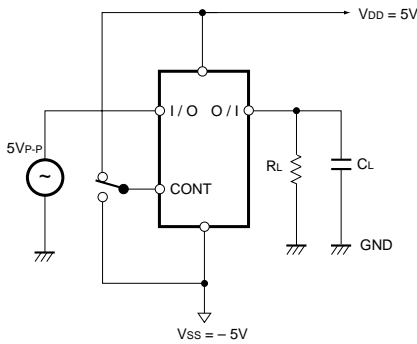


Fig. 2 (d) Sine wave distortion, feedthrough attenuation

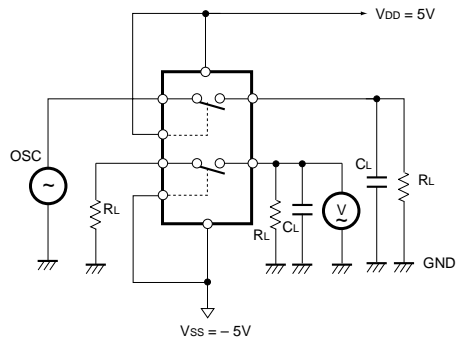


Fig. 2 (e) Crosstalk

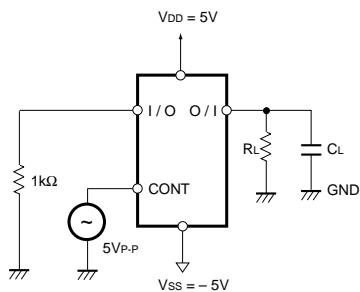


Fig. 2 (f) Control IN→OUT crosstalk

●Electrical characteristic curve

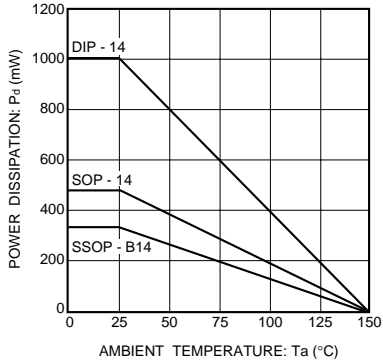


Fig. 3 Power dissipation vs. ambient temperature

●External dimensions (Units: mm)

