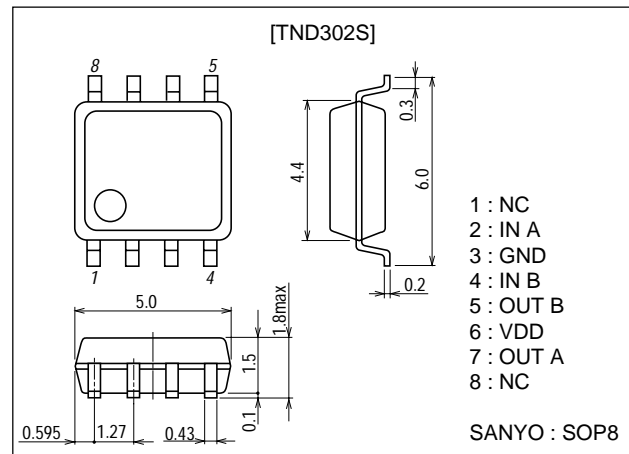


**TND302S**
General Purpose Driver for PDP Sustain Pulse Drive, DC / AC Motor Drive, Switching Power Supply, and DC / DC Converter Applications
Features

- Dual buffer.
- Monolithic structure(High voltage CMOS process adopted).
- Withstand voltage of 25V is assured.
- Wide range of operating voltage : 4.5V to 25V.
- Peak output current : 2A.
- Fast switching time(25ns typical at 1000pF load).
- Fully compatible input to TTL/CMOS.
(V_{IH} =not more than 2.6V, at V_{DD} =4.5 to 25V)

Package Dimensions
 unit : mm
 2199
**Specifications****Absolute Maximum Ratings** at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Supply Voltage	V_{DD}		0 to 25	V
Input Voltage	V_{IN}		GND-0.3 to $V_{DD}+0.3$	V
Allowable Power Dissipation	P_D max		0.3	W
Junction Temperature	T_j		-55 to +150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Recommended Operating Conditions at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Operating Supply Voltage	V_{DD}		4.5 to 25	V
Operating Temperature	T_{opr}		-40 to +125	$^\circ\text{C}$

Electrical Characteristics (AC Characteristics) at $T_a=25^\circ\text{C}$, $V_{DD}=18\text{V}$, $V_{IN}=5\text{V}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-On Rise Time	t_r	$C_L=1000\text{pF}$		20	35	ns
Turn-Off Fall Time	t_f	$C_L=1000\text{pF}$		25	40	ns
Delay Time	t_{D1}	$C_L=1000\text{pF}$		30	45	ns
	t_{D2}	$C_L=1000\text{pF}$		45	60	ns

- Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.
- SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

SANYO Electric Co.,Ltd. Semiconductor Company

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

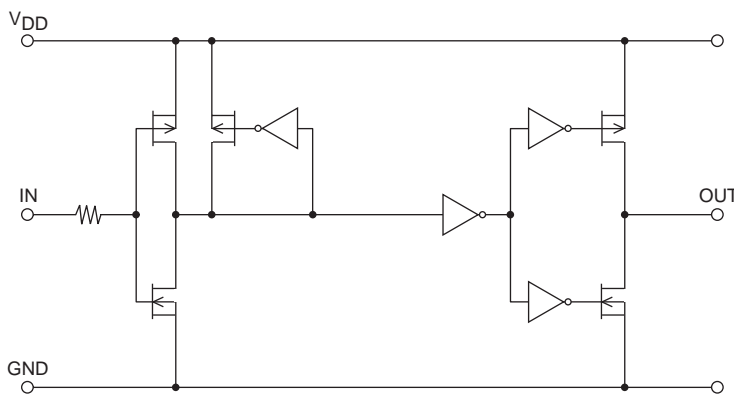
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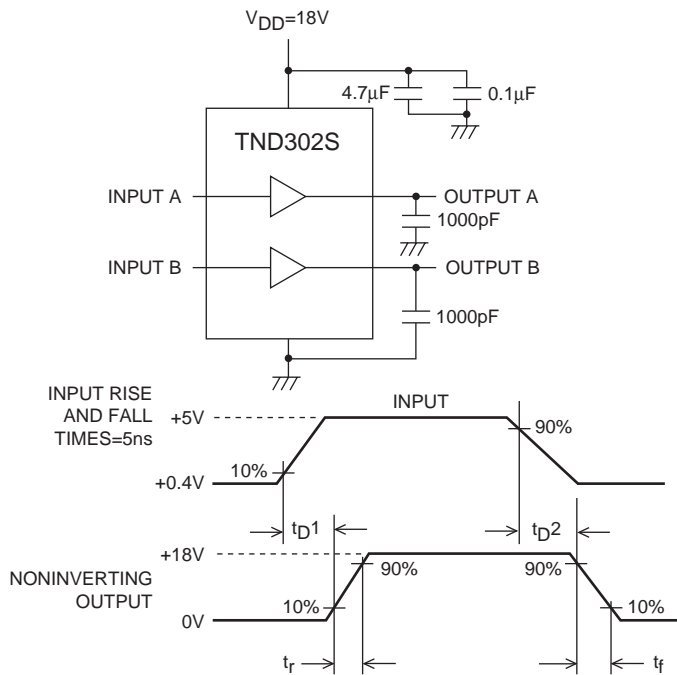
Electrical Characteristics (DC Characteristics) at $T_a=25^\circ\text{C}$, $V_{DD}=4.5$ to 25V

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Logic "1" Input Voltage	V_{IH}		2.6			V
Logic "0" Input Voltage	V_{IL}				0.8	V
Input Bias Current	I_{IN}	$V_{IN}=0$ or V_{DD}	-1		1	μA
High Level Output Voltage	V_{OH}	$I_O=0$	$V_{DD}-0.1$			V
Low Level Output Voltage	V_{OL}	$I_O=0$			0.1	V
V_{DD} Supply Current	I_{supp}	$V_{DD}=10\text{V}$, $V_{IN}=3\text{V}$, (both inputs)		1.0	4.5	mA
		$V_{DD}=10\text{V}$, $V_{IN}=0$, (both inputs)			0.2	mA
Output High Short Circuit Pulsed Current	I_{O+}	$V_{DD}=18\text{V}$, $PW \leq 10\mu\text{s}$, $V_{OUT}=0$		2.0		A
Output Low Short Circuit Pulsed Current	I_{O-}	$V_{DD}=18\text{V}$, $PW \leq 10\mu\text{s}$, $V_{OUT}=18\text{V}$		2.0		A
Output On Resistance	R_{OUT}	$V_{DD}=18\text{V}$, $I_{load}=10\text{mA}$, $V_{OUT}="H"$		4	6	Ω
		$V_{DD}=18\text{V}$, $I_{load}=10\text{mA}$, $V_{OUT}="L"$		3	5	Ω

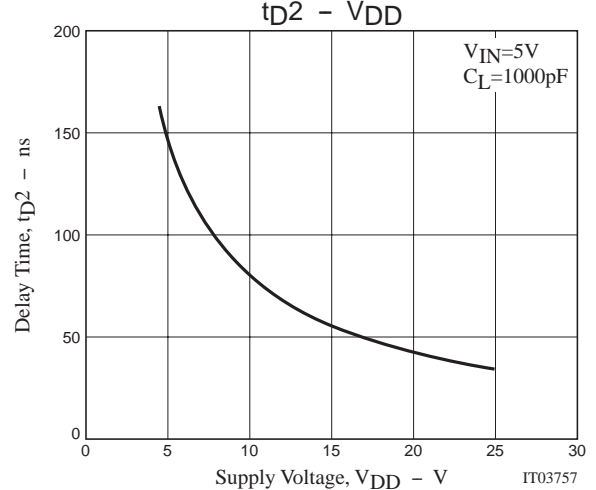
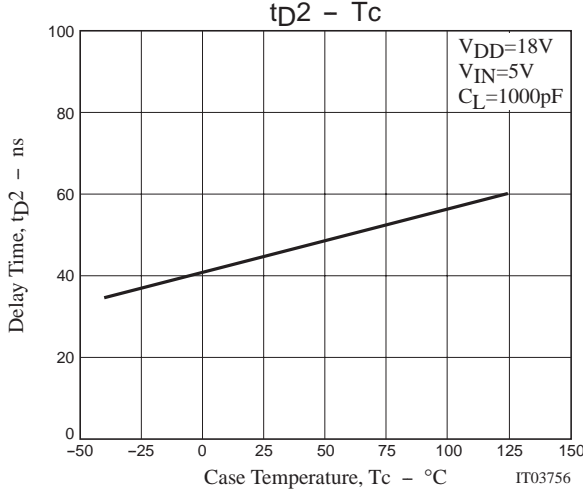
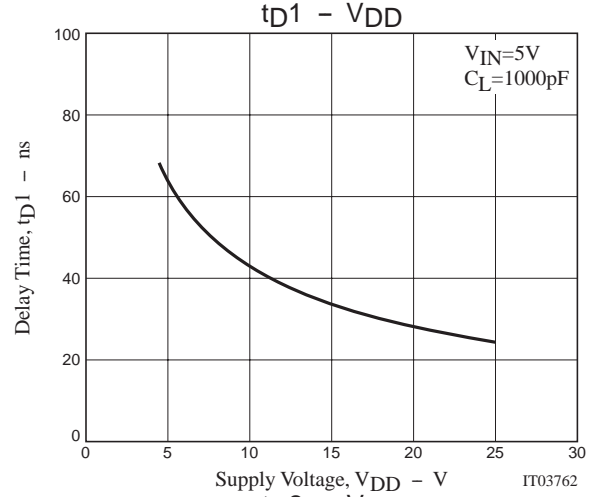
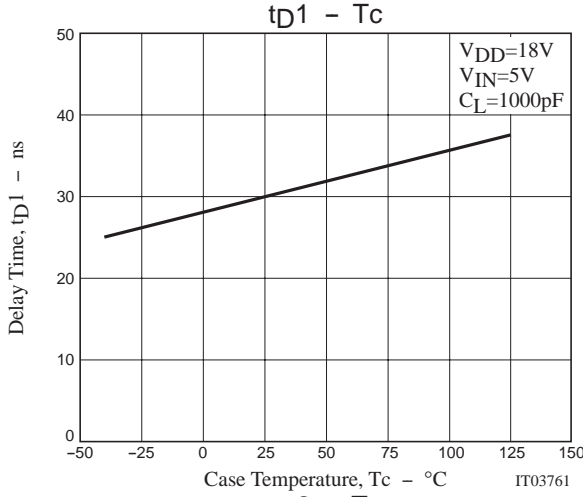
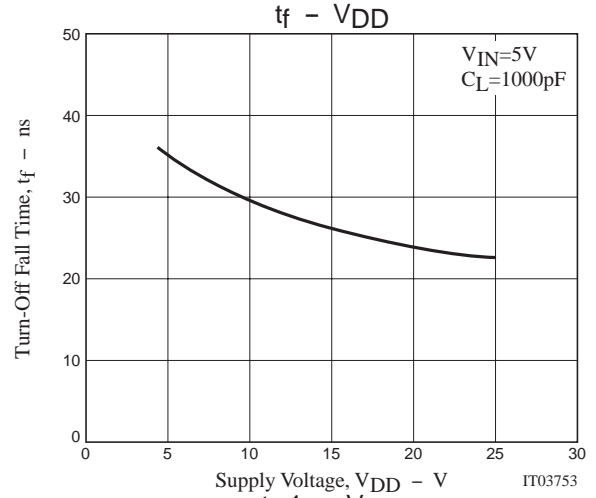
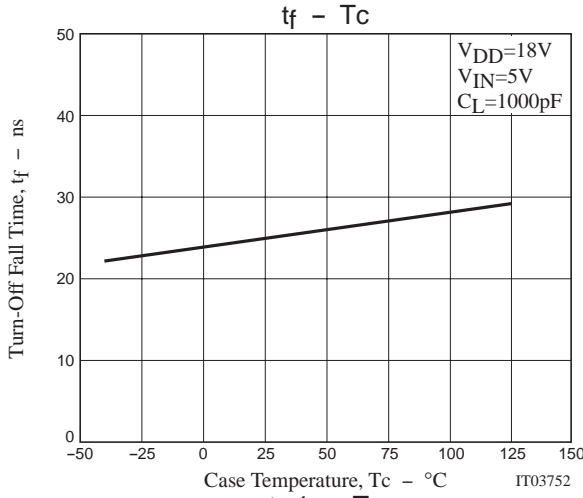
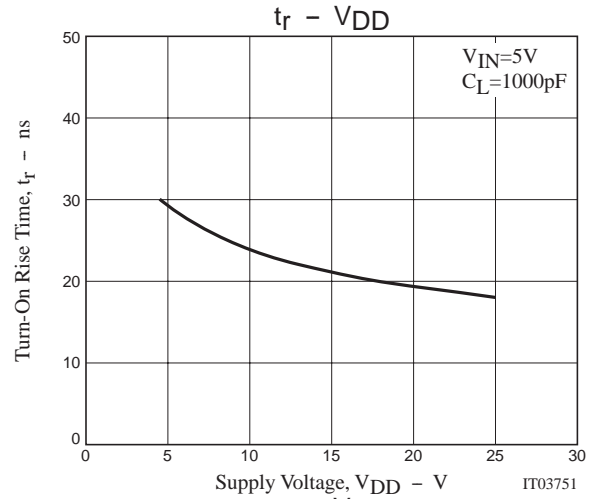
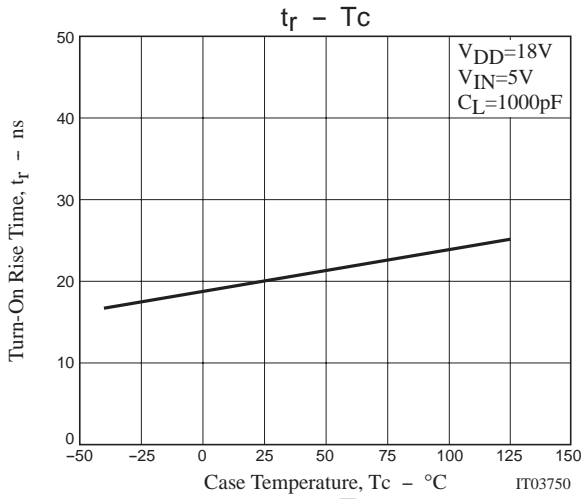
Block Diagram

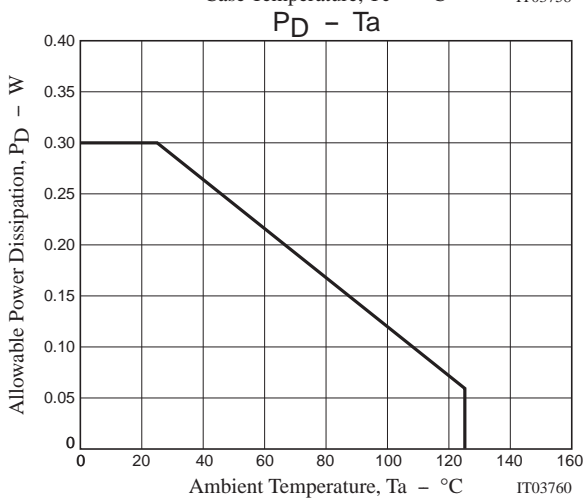
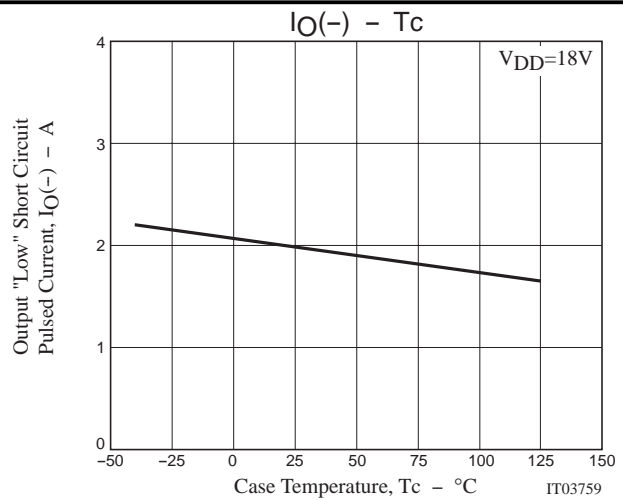
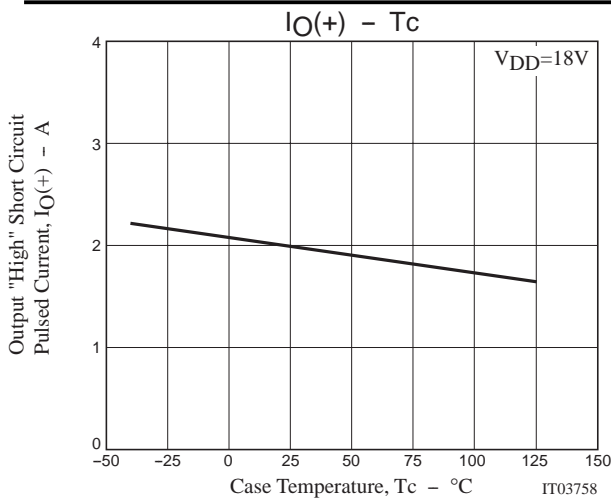


Switching Time Measuring Circuit



TND302S





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