

XF Series High Speed PIN Drivers with X-OR Function

DESCRIPTION

High Speed PIN drivers with TTL compatible Exclusive-OR inputs that allow for either inverting or non-inverting operation.

These drivers provide steady state output current with current spikes for fast PIN and NIP switching.

Testpoints are provided to allow tailoring of output currents and spikes to particular applications. Internal current limiting assures that short-term accidental short circuits to this test point will usually not damage driver.

These drivers have integral reverse bias protection and contain .01 μ F bypass capacitors on both supply inputs.

Screening to MIL-STD-833 is available.

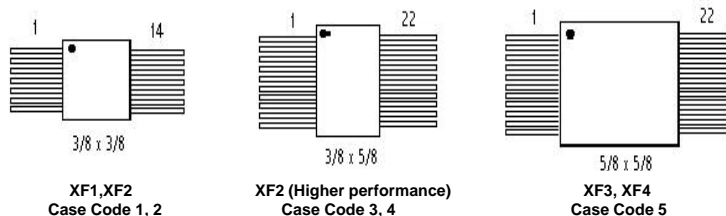
FEATURES

- Reverse Bias Protected
- Small Size
- Low Quiescent Current, Stable vs. VEE (see note)
- Choice of inverting or Non-Inverting Modes
- Low Input Capacitance, TTL Compatible
- 15 nsec Max Switch Delay

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Positive Supply Voltage	V+	4.75	5	5.5	V
Negative Supply Voltage (A code)	V-	-2	-5	-12	V
Negative Supply Voltage (B code)	V-	-2	-5	-12	V
TTL Input Current, in Low	I TTL 0	--	--	1.6	mA
TTL Input Current, in Hi	I TTL 1	--	--	40	μ A
Switch Speed	TSW	--	10	15	nsec
Positive Supply Current, No Load IQ+	Case 1 thru 4	--	12	15	mA
(VEE=-2V TO -16V)	Case 5,6	--	24	30	mA
Negative Supply Current, No Load IQ-	XF1	--	5	7	mA
(VEE=-2V TO -16V)	XF2	--	10	14	mA
	XF4	--	20	28	mA

Note : Negative output current of XF2 in Case Code 1 & 2 can be gain-limited and temperature-dependent in many applications.

OUTLINES



LOGIC

INA	INB	OUTPUT	LOGIC
0	0	--	If either INA or INB are connected to ground, then the output will be noninverting relative to pulses applied to the remaining input.
0	1	+	
1	0	+	
1	1	--	

Allowing either INA or INB to 'float' Hi, or connecting INA or INB to +5V causes the output to be inverting relative to the remaining input.

PIN CONNECTIONS

PIN	XF1 Case 1, 2	XF2 Case 1,2	XF2 Case 3,4	XF3 Case 5	XF4 Case 5
1	VEE	VEE	VEE	VEE	VEE
2	Out	Out 1	Out 1	Out 1	Out 1
3	Gnd	Gnd	TPOut1	TPOut1	TPOut1
4	IN A	IN 1A	IN 1A	IN 1A	IN 1A
5	IN B	IN 1B	IN 1B	IN 1B	IN 1B
6	NC	NC	Gnd	Gnd	Gnd
7	+5V	+5V	IN 2B	IN 2B	IN 2B
8	NC	5V	IN 2A	IN 2A	IN 2A
9	NC	NC	TP Out2	TP Out2	TP Out2
10	NC	IN 2B	Out2	Out 2	Out 2
11	NC	IN 2A	NC	+5V	+5V
12	NC	Gnd	NC	VEE	VEE
13	NC	Out 2	NC	Out 3	Out 3
14	NC	VEE	NC	TP Out3	TP Out3
15	NC	NC	NC	IN 3A	IN 3A
16	NC	NC	NC	IN 3B	IN 3B
17	NC	NC	NC	Gnd	Gnd
18	NC	NC	NC	NC	IN 4B
19	NC	NC	NC	NC	IN 4A
20	NC	NC	NC	NC	TP Out4
21	NC	NC	NC	NC	Out 4
22	NC	NC	NC	NC	+5V

OUTPUT CURRENTS

The following nominal positive output currents are available: 5, 10, 15, 20, 25 mA, and 30, 40, 50, 60, 70 mA.

Negative output current is of equal magnitude at -5V (see note at left), and increases with increasing negative bias.