

### XS Series PIN Drivers with X-OR (Mode Control) Function

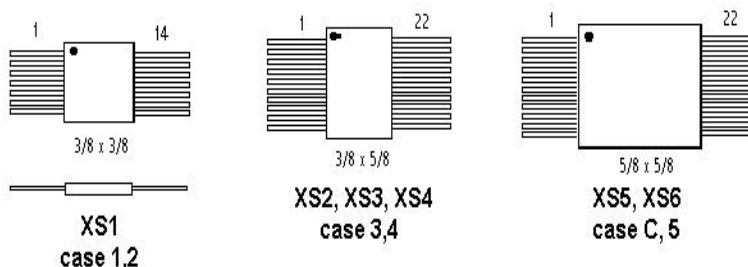
#### DESCRIPTION

Moderate speed PIN drivers with TTL mode control inputs. Outputs are positive when both inputs are logical complements.

XS Series drivers are reverse-bias protected and are rated for positive over-voltage to +5.5V. All TTL inputs are ESD protected. Both bias supplies have internal .01  $\mu$ F bypass capacitors.

These drivers are guaranteed for stability when operating with any negative supply voltage from -2V to -12V (A voltage code) or -2 to -15V (B voltage code).

#### OUTLINES



#### LOGIC

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

#### FEATURES

- Reverse Bias Protected
- Low Quiescent Current, Stable vs VEE
- Small Size: XS1, XS2 can be SIP  
XS2, XS3, XS4 are 3/8 by 5/8
- Inverting and Noninverting Modes
- Fast - 30 nsec Typical Delay

#### PIN CONNECTIONS

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Pos. Bias Voltage	V+	4.5	5	7	V
Neg. Bias Voltage	V-	-2	-5	-16	V
TTL Input Current -	I <sub>-</sub> ttl0	--	0.8	1.6	mA
TTL Input Current +	I <sub>+</sub> ttl1	--	--	40	$\mu$ A
Switching Speed	T <sub>sw</sub>	--	30	70	nsec
Pos. Supply (no load) per Chan.	I <sub>q+</sub>	--	3	8	mA
Neg Supply (no load) per Chan.	I <sub>q-</sub>	--	3	8	mA

PIN	XS1	XS2	XS3	XS4	XS5	XS6
1	VEE	+5v	+5v	+5v	+5v	+5v
2	Out	IN1A	IN1A	IN1A	Out 1	Out 1
3	Gnd	IN1B	IN1B	IN1B	IN1A	IN1A
4	INA	IN2A	IN2A	IN2A	IN1B	IN1B
5	INB	IN2B	IN2B	IN2B	Out 2	Out 2
6	NC	NC	NC	NC	IN2A	IN2A
7	+5v	Out 1	Out 1	Out 1	IN2B	IN2B
8	NC	NC	NC	NC	Out 3	Out 3
9	NC	Out 2	Out 2	Out 2	IN3A	IN3A
10	NC	Gnd	NC	NC	IN3B	IN3B
11	NC	VEE	VEE	VEE	Gnd	Gnd
12	NC	NC	Gnd	Gnd	VEE	VEE
13	NC	NC	NC	NC	NC	Out 6
14	NC	NC	NC	Out 4	NC	IN6A
15	NC	NC	NC	NC	NC	IN6B
16	NC	NC	Out 3	Out 3	Out 5	Out 5
17	NC	NC	NC	NC	IN5A	IN5A
18	NC	NC	NC	IN4B	IN5B	IN5B
19	NC	NC	NC	IN4A	Out 4	Out 4
20	NC	NC	IN3B	IN3B	IN4A	IN4A
21	NC	NC	IN3A	IN3A	IN4B	IN4B
22	NC	NC	Gnd	Gnd	Gnd	Gnd