

Features

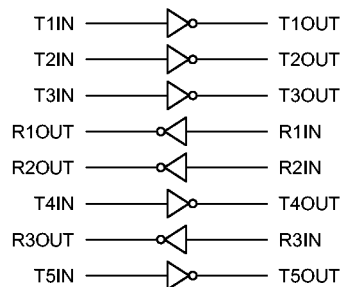
- Single chip with easy interface between modem and serial port connector
- Five drivers and three receivers meet or exceed the requirements of EIA/TIA-232-D
- Flexible supply voltage range
- ESD protection exceeds 3kV

General Description

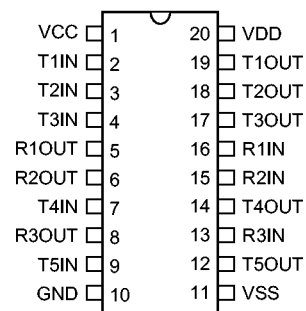
The HT82323 is a CMOS device containing five RS-232 line drivers, and three RS-232 line receivers that are used to interface data terminal

equipment (DTE) with data circuit-terminating equipment (DCE).

Block Diagram



Pin Assignment



HT82323
- 20 DIP/SOP

Pin Description

Pin No.	Pin Name	I/O	Description
1	VCC	—	5V
2~4, 7, 9	T1~5IN	I	TTL/CMOS transmit inputs
5~6, 8	R1~3OUT	O	TTL/CMOS receiver outputs
10	GND	—	Ground
11	VSS	—	-12V
12, 14, 17~19	T1~5OUT	O	RS-232 transmit outputs
13, 15~16	R1~3IN	I	RS-232 receiver inputs
20	VDD	—	+12V

Absolute Maximum Ratings

Supply Voltage (VSS, VDD)	-12V~12V	Supply Voltage (GND, VCC)	-0.3V~5.5V
Input Voltage Driver	0V~7V	Receiver	-12V~12V
Output Voltage Driver	-12V~12V		

Note: These are stress ratings only. Stresses exceeding the range specified under "Absolute Maximum Ratings" may cause substantial damage to the device. Functional operation of this device at other conditions beyond those listed in the specification is not implied and prolonged exposure to extreme conditions may affect device reliability.

Electrical Characteristics

Ta=25°C

Symbol	Parameter	Test Conditions				Min.	Typ.	Max.	Unit
		V _{DD}	V _{SS}	V _{CC}	Conditions				
V _{DD}	Positive Power Supply	—	—	—	—	12	—	V	
V _{SS}	Negative Power Supply	—	—	—	—	-12	—	V	
V _{CC}	Positive	—	—	—	—	5	—	V	
V _{IL1}	Input Logic Threshold Low (TIN1~5)	12V	-12V	5V	—	—	0.8	V	
V _{IH1}	Input Logic Threshold High (TIN1~5)	12V	-12V	5V	—	2.4	—	V	
V _{IL2}	Input Logic Threshold Low (RIN1~3)	12V	-12V	5V	—	0.5	0.8	V	
V _{IH2}	Input Logic Threshold High (RIN1~3)	12V	-12V	5V	—	—	2.0	2.5	V
R _{IN}	RS-232 Input Resistance	12V	-12V	5V	—	3	5	10	kΩ
V _{OL}	TTL/CMOS Output Low	12V	-12V	5V	I _{OUT} =1.6mA	—	—	0.4	V
V _{OH}	TTL/CMOS Output High	12V	-12V	5V	I _{OUT} =1.0mA	3.5	V _{DD} -0.4	—	V
T _{SR}	Transmission Region Slew Rate	12V	-12V	5V	R _L =3kΩ~7kΩ C _L =50pF~2500pF	3	10	60	V/μs
R _{OL}	Transmitter Output Resistance	—	—	—	—	300	—	—	Ω
I _S	RS-232 Output Short Circuit Current	—	—	—	—	—	10	60	mA

Application Circuits

