

FEATURES:

- Meet EIA/TIA-232-F standard
- High baud rate of up to 115200bps
- Two-port isolation test voltage(3K VDC)
- Operating ambient temperature range: -40℃to+85℃
- Integrated isolated DC/DCconverter

Selection Guide

Part No.	Power input (VDC)	Baud rate (kbps)	Static Current (mA)	Max. Operating Current (mA)	Number of Nodes
TD301D232H	3.15-3.45	115200	50	75	
TD501D232H	4.75-5.25	115200	35	65	
TD301D232HG	3.15-3.45	115200	50	75	
TD501D232HG	4.75-5.25	115200	35	65	

customized accepted,pls contact sales for details

3.3V Input Specifications

Item		Symbol	Min.	Typ	Max.	Unit
Power Supply Input Voltage		Vcc	3.15	3.3	3.45	VDC
TXD Logic Level	High-level	VIH	0.7Vcc	-	3.6	
	Low-level	VIL	0	-	0.8	
RXD Logic Level	High-level	VOH	Vcc-0.4	3.1	-	
	Low-level	VOL	0	0.2	0.4	
TXD Drive Current		It	2	-	-	mA
RXD Output Current		Ir	-	-	10	
Serial Interface		Compatible with + 3.3 V UART interface only				

5V Input Specifications

Item		Symbol	Min.	Min.	Max.	Unit
Power Supply Input Voltage		Vcc	4.75	5	5.25	VDC
TXD Logic Level	High-level	VIH	0.7Vcc	-	5.5	
	Low-level	VIL	0	-	0.8	
RXD Logic Level	High-level	VOH	Vcc-0.4	4.8	-	
	Low-level	VOL	0	0.2	0.4	
TXD Drive Current		It	2	-	-	10
RXD Output Current		Ir	-	-	-	

Serial Interface		Compatible with +5V UART interface only
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Output Specifications

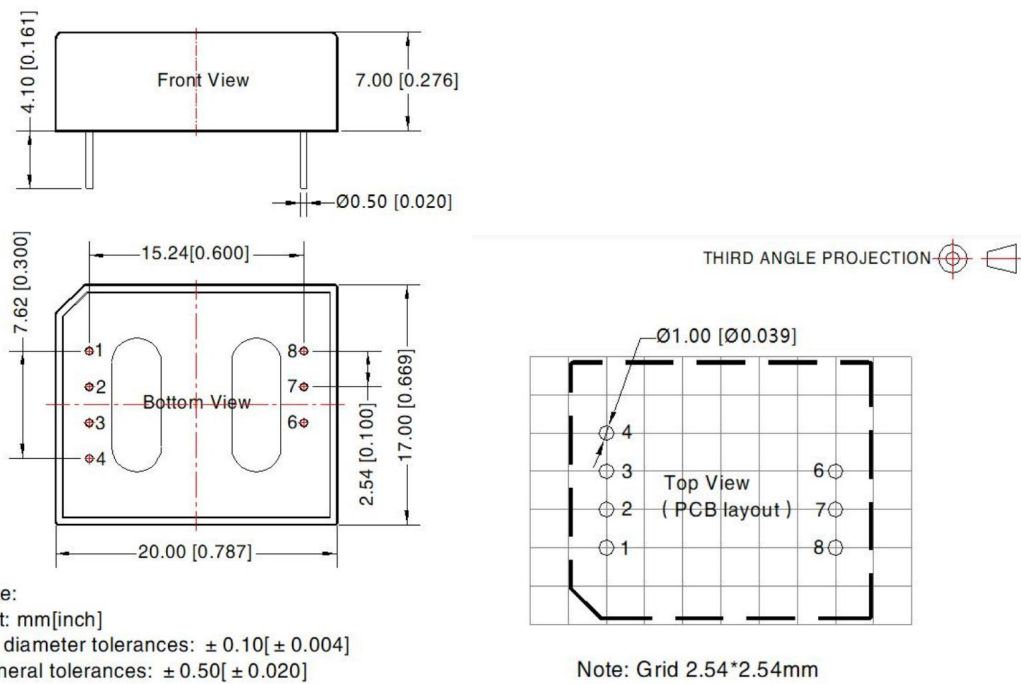
Item		Operating Conditions	Min.	Typ.	Max.	Unit
Drive Output Voltage	High Level	RL=3kΩ to GND	5	-	-	VDC
	Low Level	RL=3kΩ to GND	-	-	-5	
Receive Input Voltage			-15	-	+15	
Bus Interface Protection		ESD protection				

General Specifications

ITEM	Operating Conditions	Value
Insulation Resistance	500VDC	1000MΩ (Input-output)
Isolation Test	Electric Strength Test for 1 min., leakage current <1mA	3K VDC
Operating Temperature	-40~+85℃	
Storage Temperature	-55~+105℃	
Storage Humidity	10%RH - 90%RH	Non-condensing
Application Environment		The presence of dust, severe vibration, shock and corrosive gas may cause damage to the product
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	4g (Typ)	

**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.

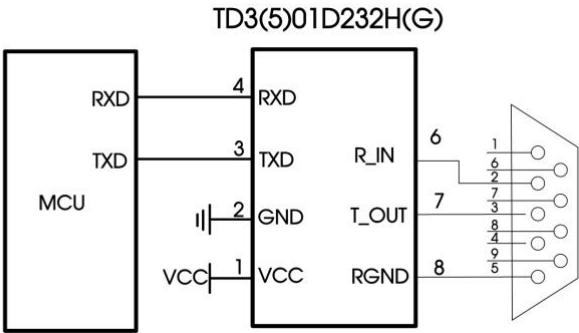
Dimensions and Recommended Layout



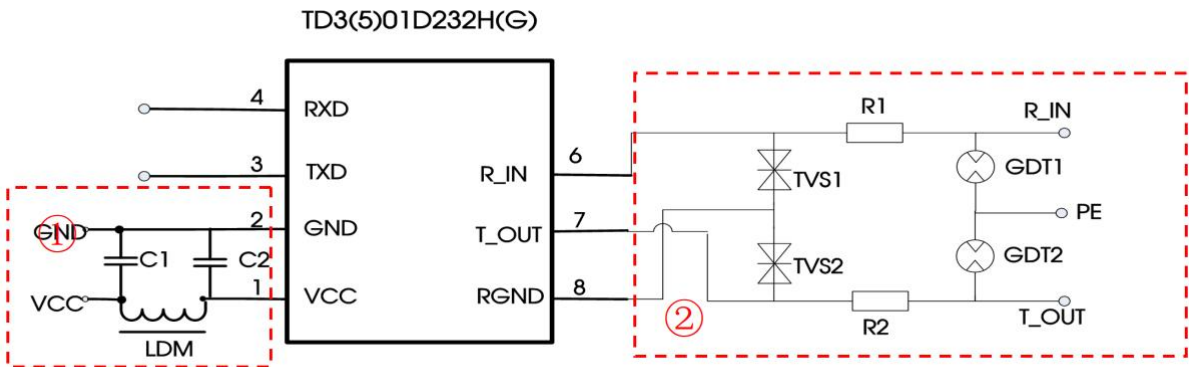
Pins

Pin-Out		
Pin	Mark	Function
1	VCC	Input Power+
2	GND	GND
3	TXD	Sending Pin
4	RXD	Receiving Pin
6	R_IN	RS-232 Input
7	T_OUT	RS-232 Output
8	RGND	Isolation Power Output RGND

Recommended Circuit



Recommended EMC Circuit



Model	TD301D232H(G)	TD501D232H(G)
C1, C2	1uF/16V	
LDM	CD43-12uH	
TVS1, TVS2	SMCJ10CA	
R1, R2	12 Ω /2W(Wire-wound resistor)	
GDT1, GDT2	S30-A90X	

Noted

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.

