



## LM75154 quad line receiver

### general description

The LM75154 is a quad line receiver designed to interface with data communications equipment. This device satisfies the specifications of EIA standard RS232C. The LM75154 can also be used for short, single-line, point-to-point transmission and for level translators.

In normal operation, the threshold-control terminals are connected to pin 15, the  $V_{CC1}$  terminal. This provides a wider hysteresis loop. When the input voltage goes to zero, the output voltage will remain at the low or high level as determined by the previous input.

For fail-safe operation, the threshold-control terminals are open. This narrows the hysteresis loop by causing the negative-going threshold voltage to be above zero. When the input voltage goes to zero, the output will go to the high level independent of the previous input condition.

This guarantees that the output will be in the high level if the input voltage goes to zero or an open-circuit.

### features

- Input resistance . . . 3.0 k $\Omega$  to 7.0 k $\Omega$  over full RS232C voltage range
- Input threshold adjustable to meet "Fail-Safe" requirements without using external components
- Built-in hysteresis for increase noise immunity
- Inverting output compatible with DTL or TTL
- Output with active pull-up for symmetrical switching speeds
- Standard supply voltage 5.0V
- Can also operate with 12V supply

### connection diagram

