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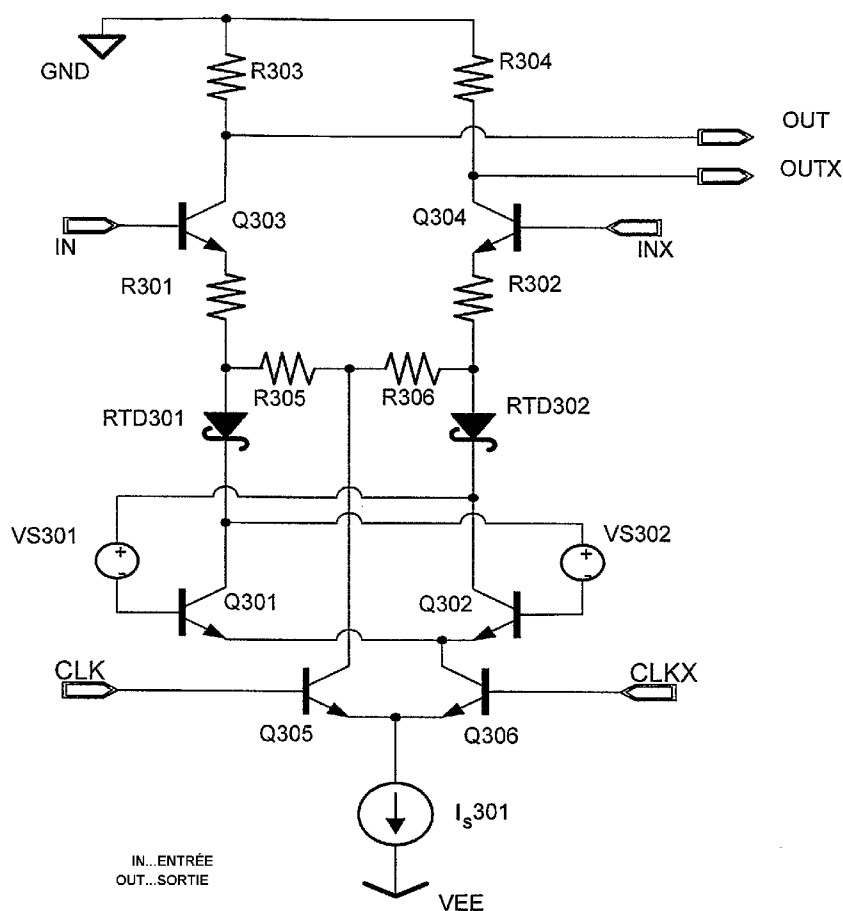
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(54) Title: COMPARATOR WITH RESONANT TUNNELING DIODES



(57) Abstract: A comparator uses two resonant tunneling diodes (RTDs) (RTD301, RTD302) in series with resistors (R301, R302) of the latch element of the comparator. By inserting two RTD diodes (RTD301, RTD302) in series with resistors (R301, R302), the negative resistance of the first and the second RTD diodes reduces the effective RD time constants of the resistors and latch, leading to a faster regeneration during a latching mode of the comparator than achieved with alternative designs.



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