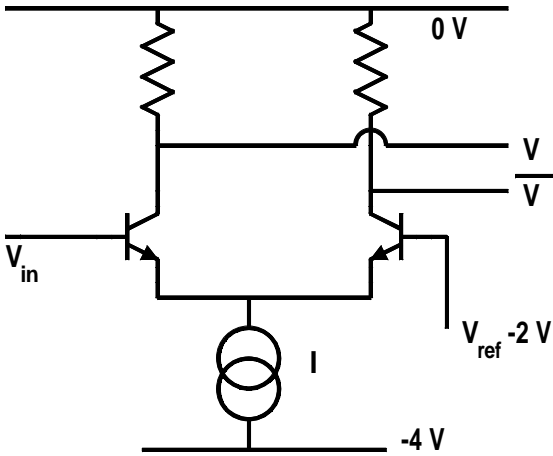
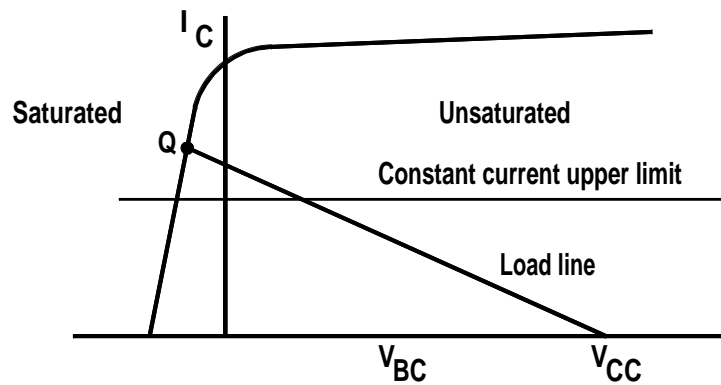


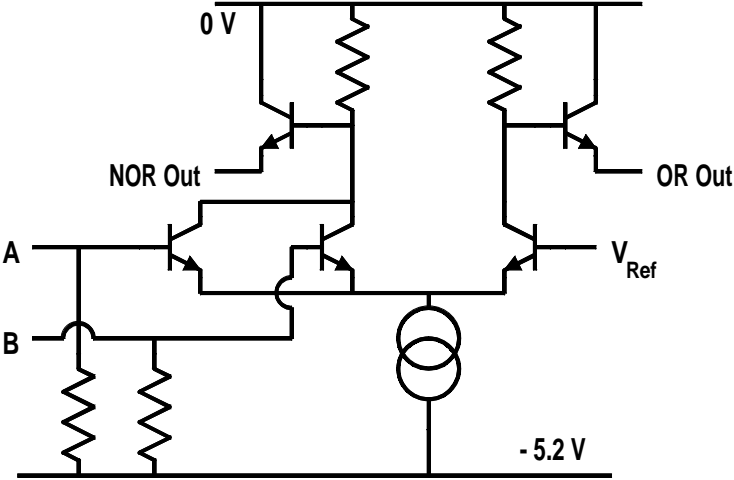
- Emitter Coupled Logic (ECL) avoids saturation effects by operating in differential mode with a limited emitter current.
 - Total current in transistor pair is less than saturation current for one transistor.
 - Unsaturated transistors have a faster switching time because of the absence of minority charge storage.
 - ECL logic gates can operate at high switching speeds.
-



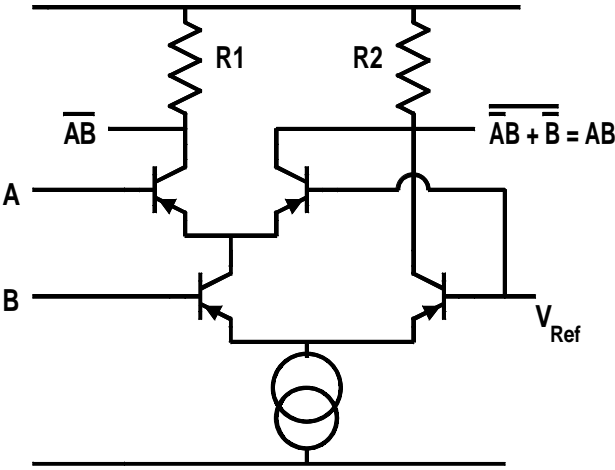
Saturation prevented by using transistors in differential mode with emitter coupling of signals.



Constant current source restricts the operating point to values less than the saturation current.



ECL OR / NOR gate implementation.



ECL AND / NAND gate implementation.

- High speed operation.
 - Video signal processing a typical example
 - Two negative voltage supplies required.
 - Converter circuits needed for interfacing to TTL or CMOS.
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