

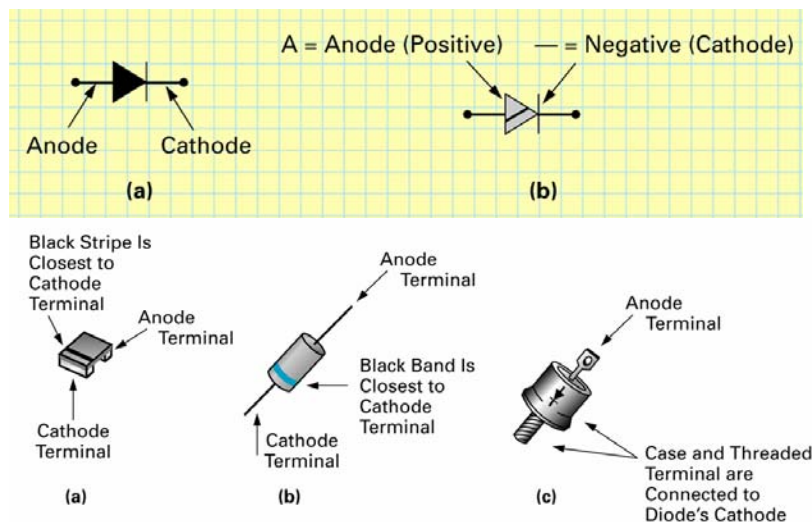
Transistor and Diode

Jee-Hwan Ryu

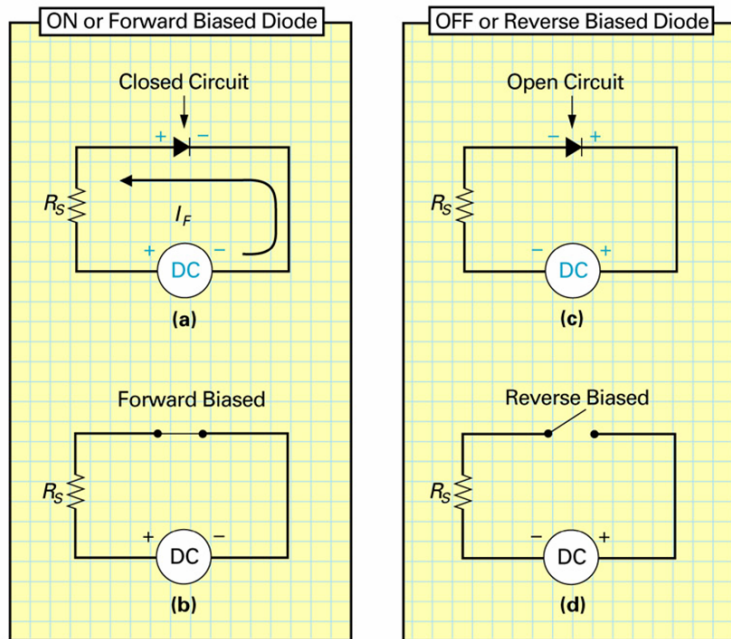
School of Mechanical Engineering
Korea University of Technology and Education

Diode

- 전류를 한쪽 방향으로 흘려주기 위한 소자
 - Anode (양극) → Cathode (음극): 도체처럼 전류를 잘 통함
 - Cathode (음극) → Anode (양극): 절연체처럼 전류를 차단

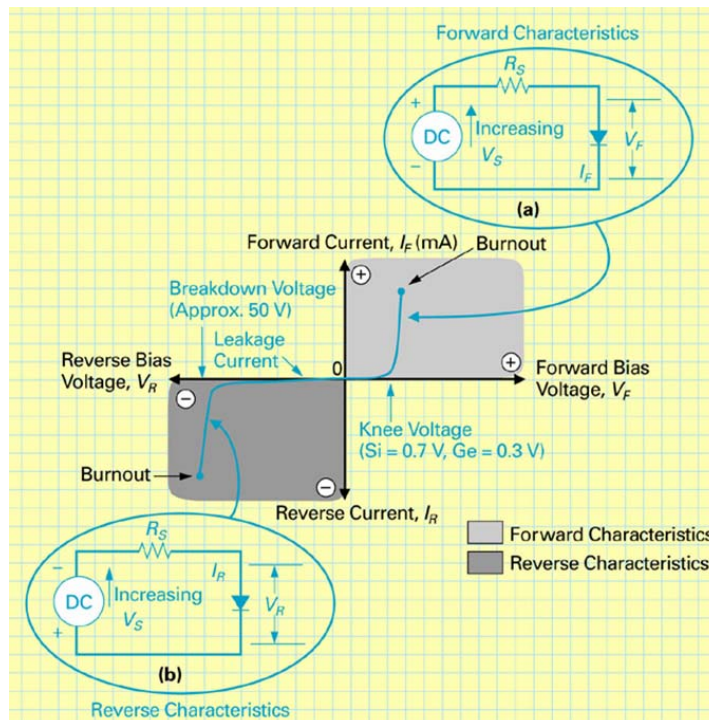


이상적인 다이오드



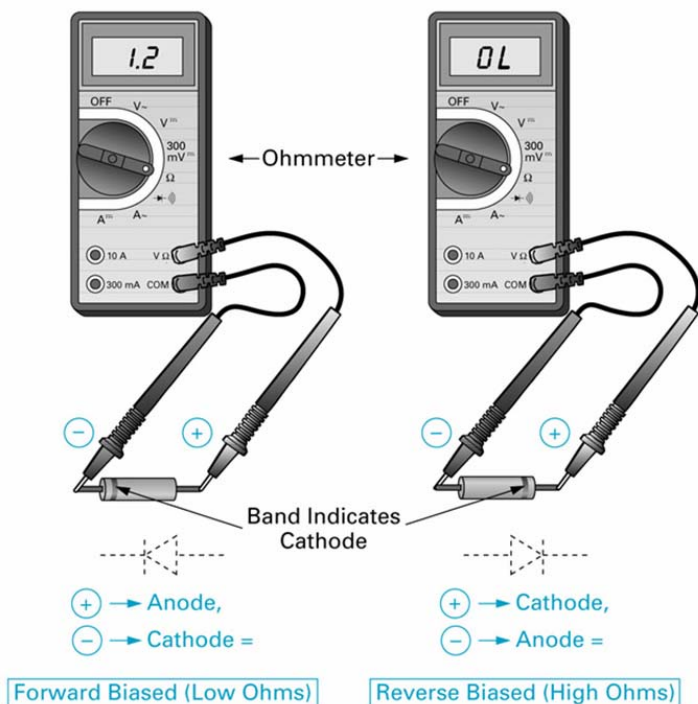
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다이오드 특성곡선



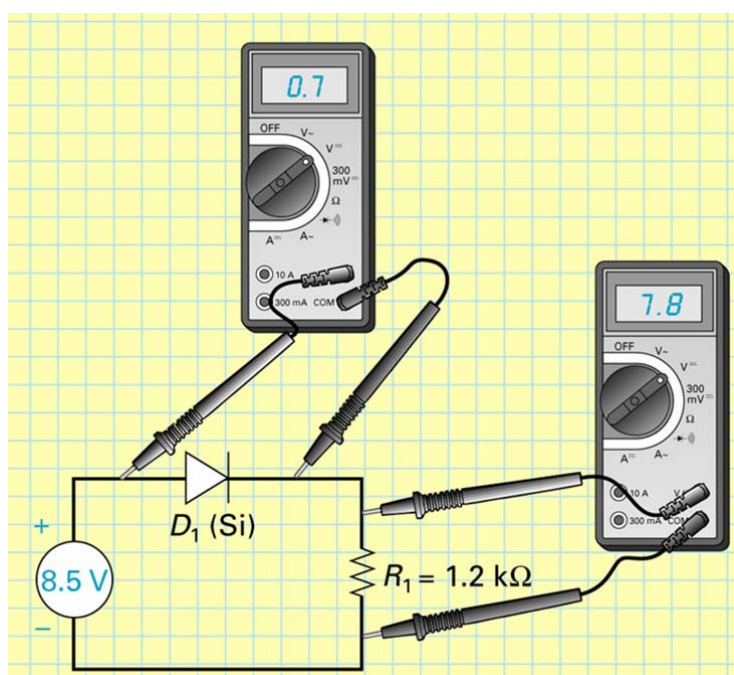
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다이오드 검사



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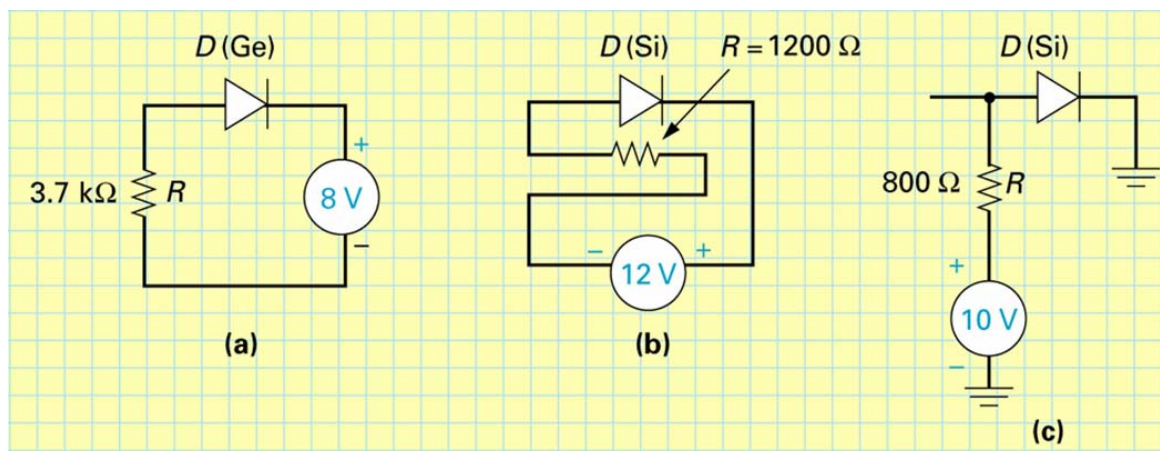
순방향 문턱전압 (Knee Voltage)



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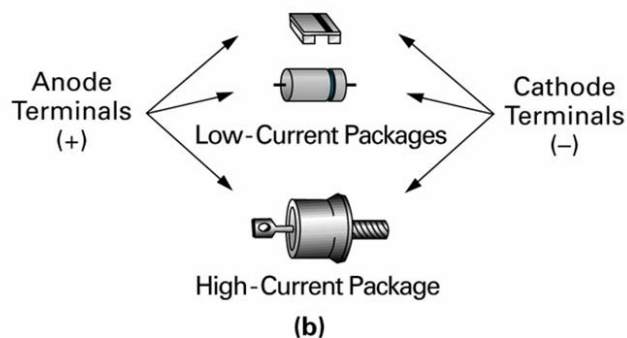
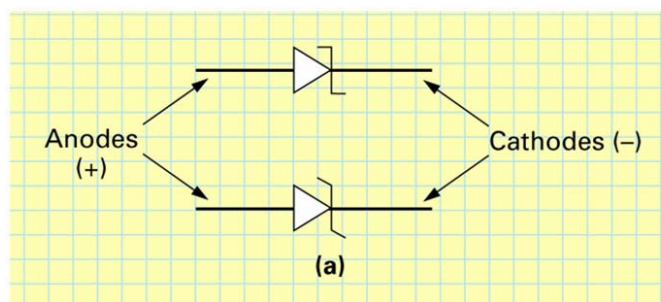
다이오드 및 저항 양단의 전압 측정

- Use FR105

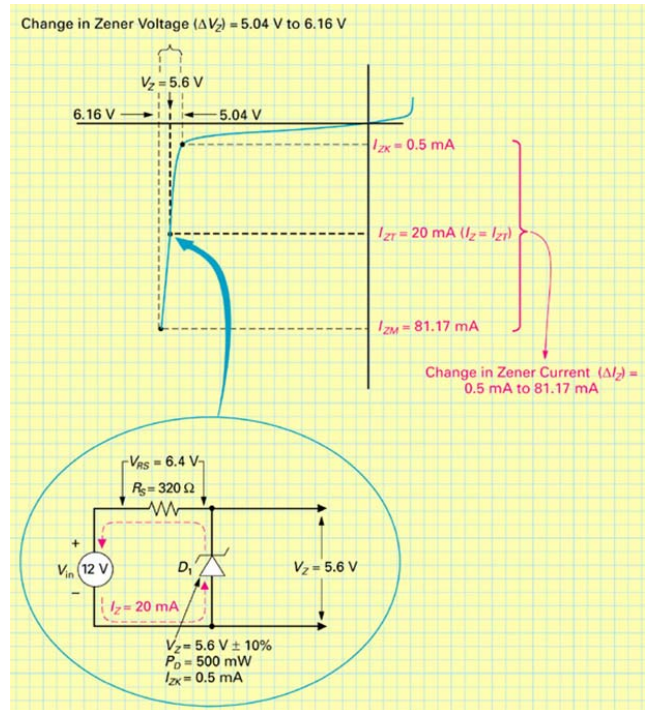
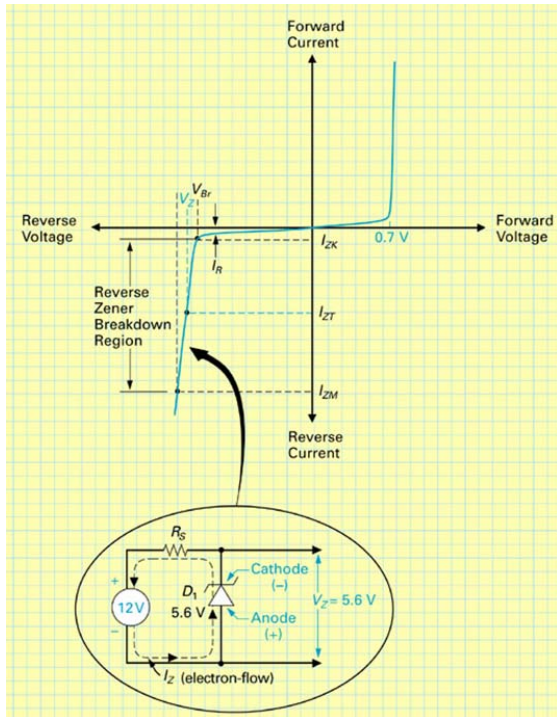


Zener Diode

- 역방향 항복전압 이상의 전압 에서도 안전하게 동작하도록 설계 되어 있는 다이오드

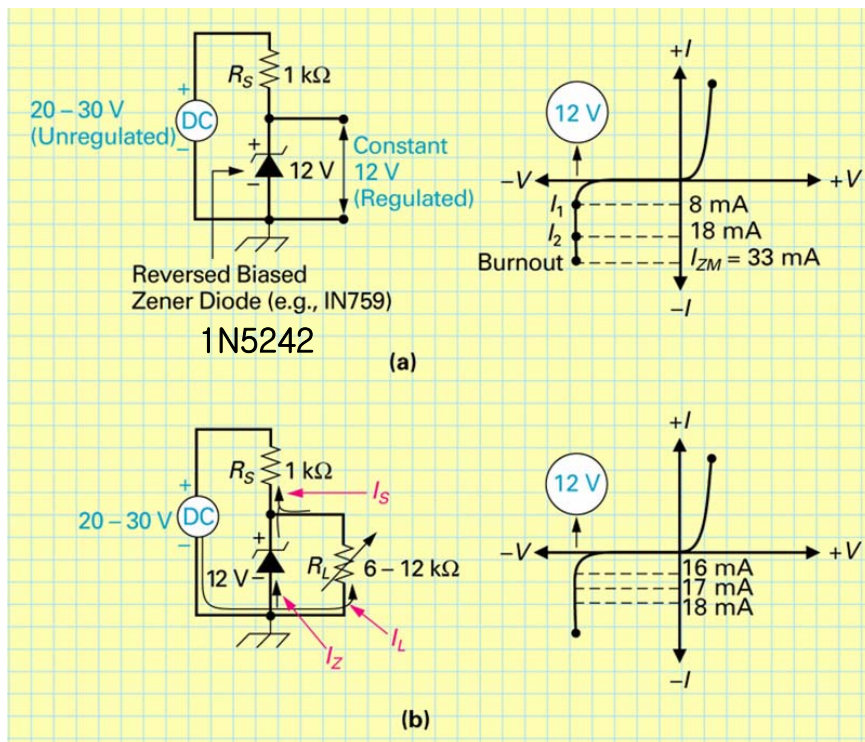


특성 곡선



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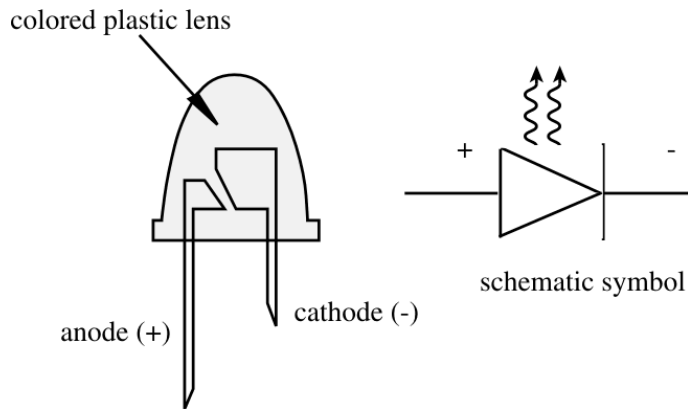
일정한 전압을 유지시키는 용도로 사용



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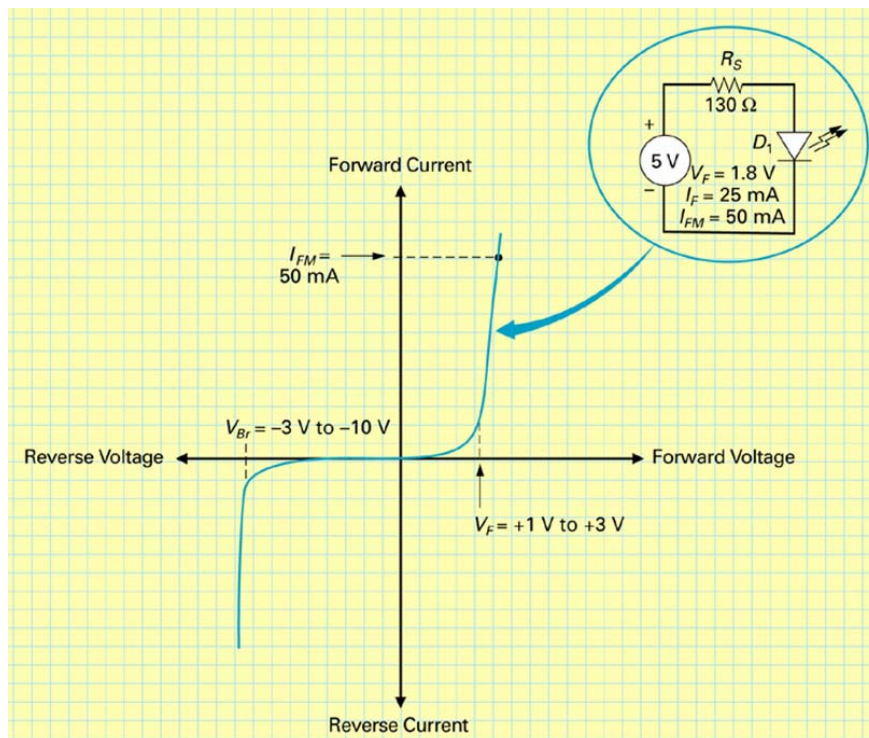
LED (Light Emitting Diode)

- 전류가 흐르는 방향으로 연결되었을 때 빛을 발하는 Diode
- 적정 전압 이상이 가해져야 전류가 흐른다.



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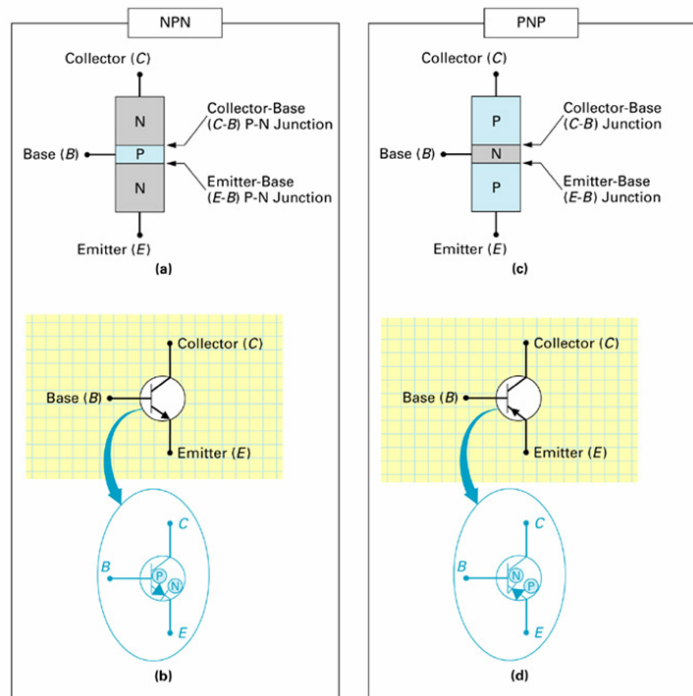
특성 곡선



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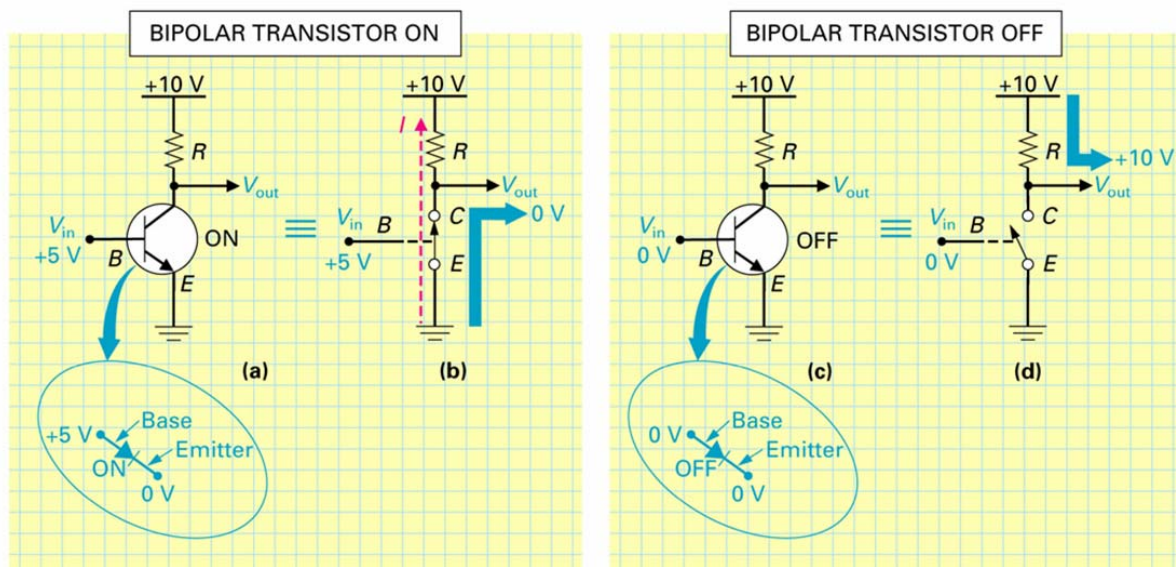
Transistor

- 트랜지스터의 B-E 다이오드가 순방향이면 ON, 역방향이면 OFF



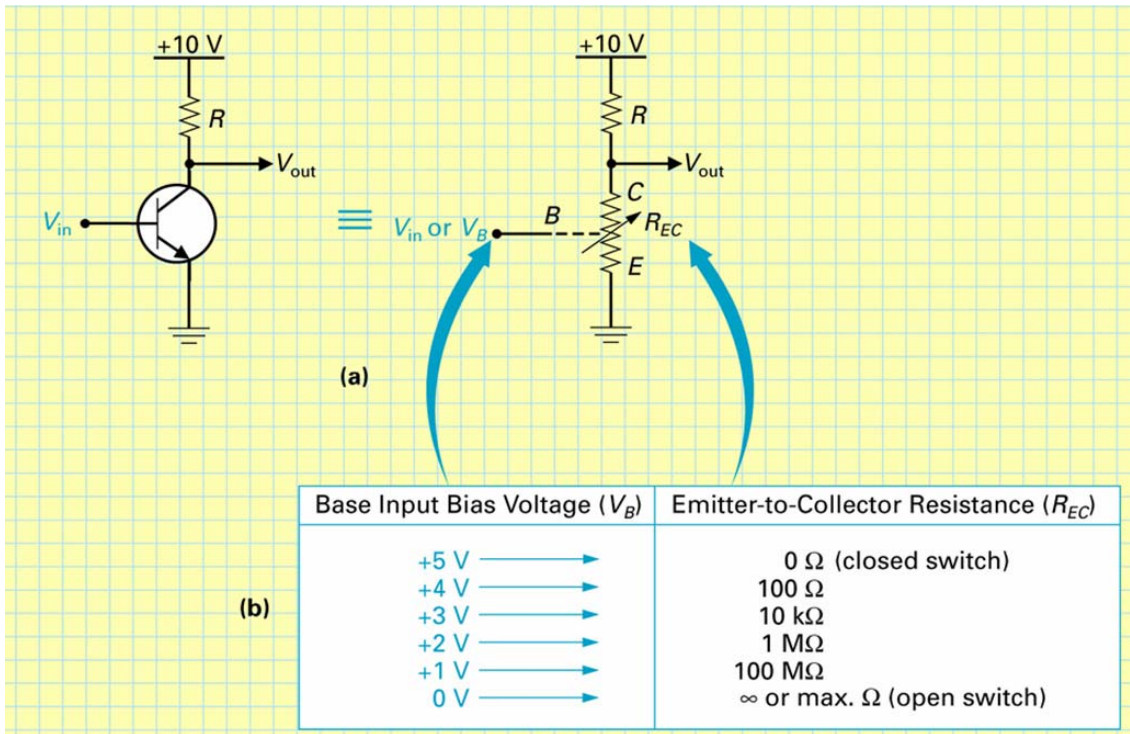
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Transistor ON/OFF Switch



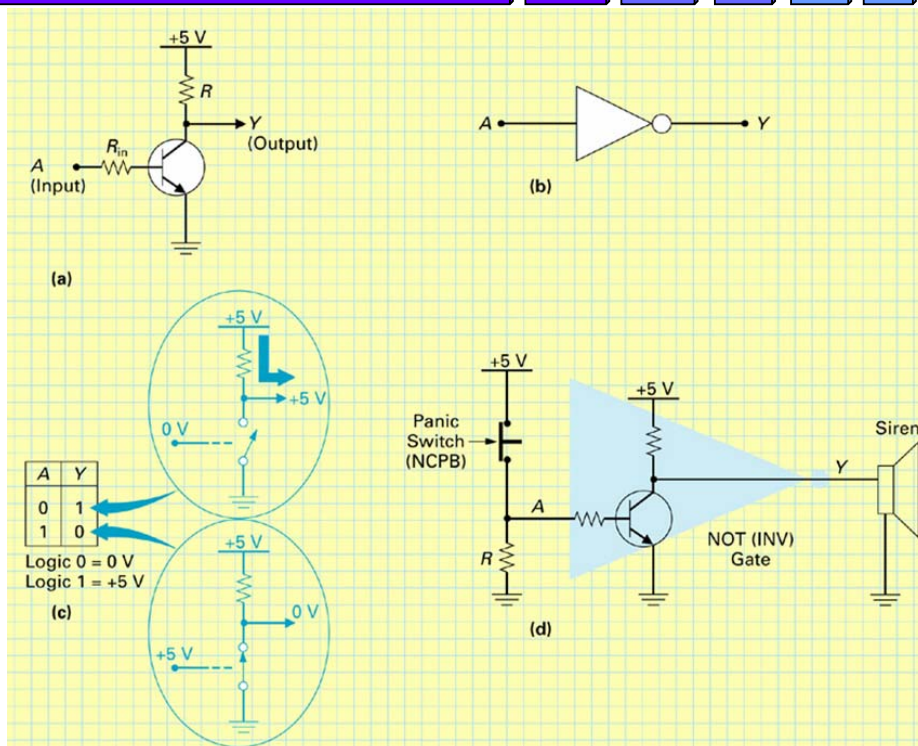
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가변저항 작용



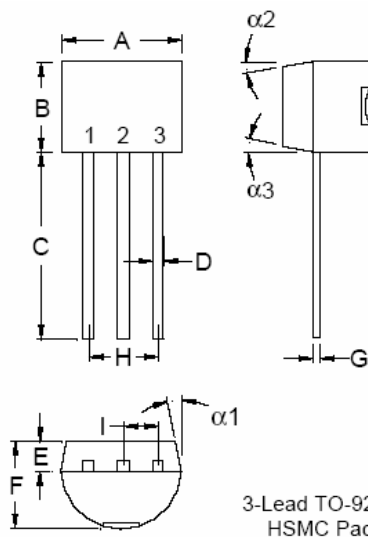
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디지털 논리게이트 회로

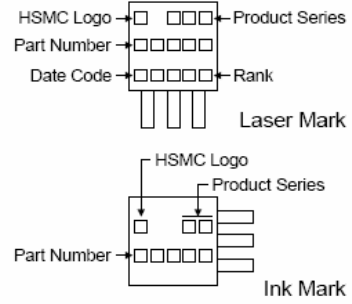


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C1815



Marking :



Style : Pin 1.Emitter 2.Collector 3.Base