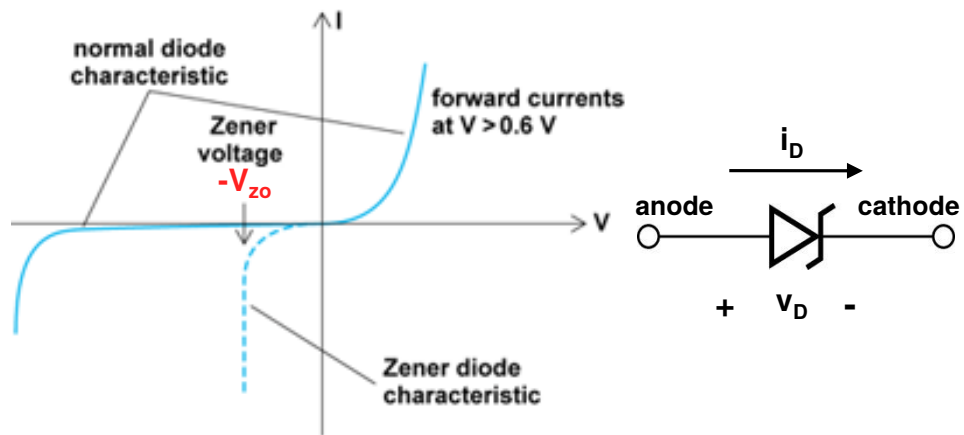


Zener Diodes

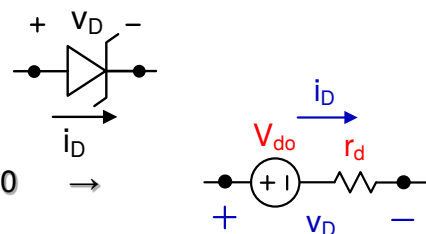
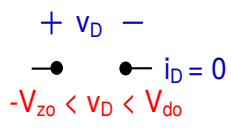
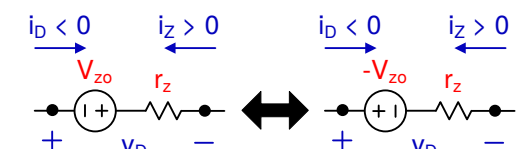
15



- Breakdown voltage (V_{zo}) below 6V
- Can operate reliably in the breakdown region

Zener Diode Modeling

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- Forward bias (FB): $I_D > 0$ → 
 - Reverse bias (RB): $-V_{zo} < V_D < V_{do}$ → 
 - Breakdown (BD): $I_z = -I_D > 0$
 $V_D = -V_{zo} - I_z \cdot r_z$ → 
- Note: reverse polarity (V_{zo} , i_z) compared to FB