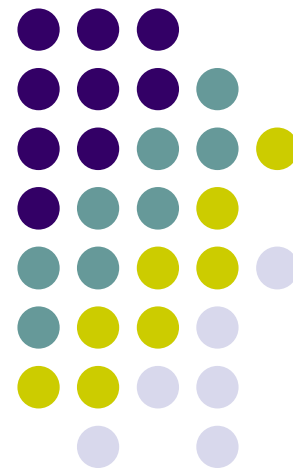


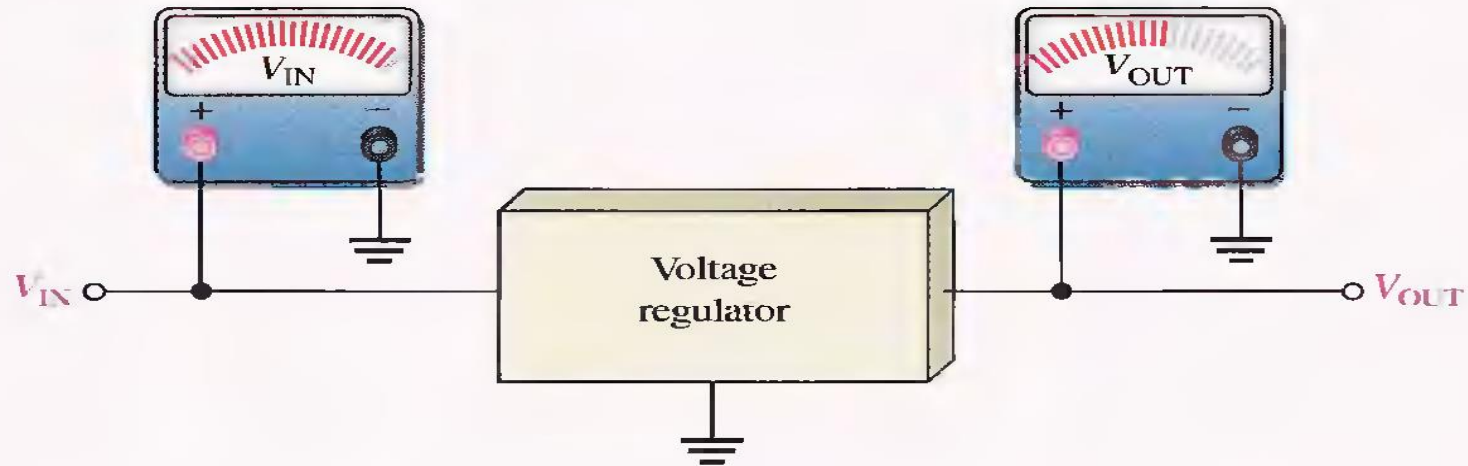


ỔN ÁP[?]

(VOLTAGE
REGULATORS)



ỔN ÁP (VOLTAGE REGULATORS)

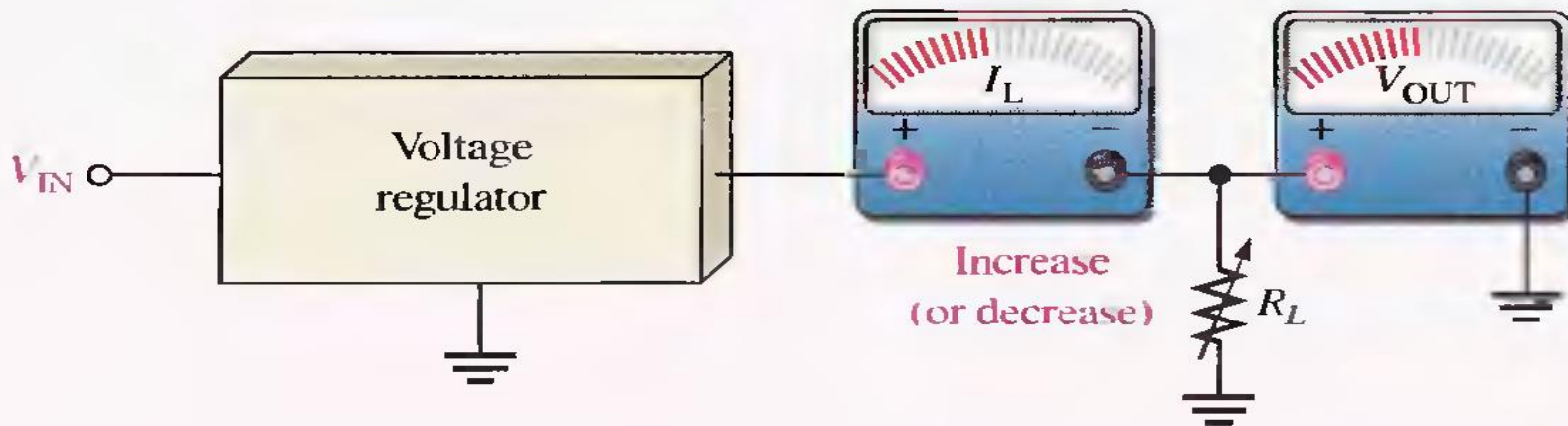
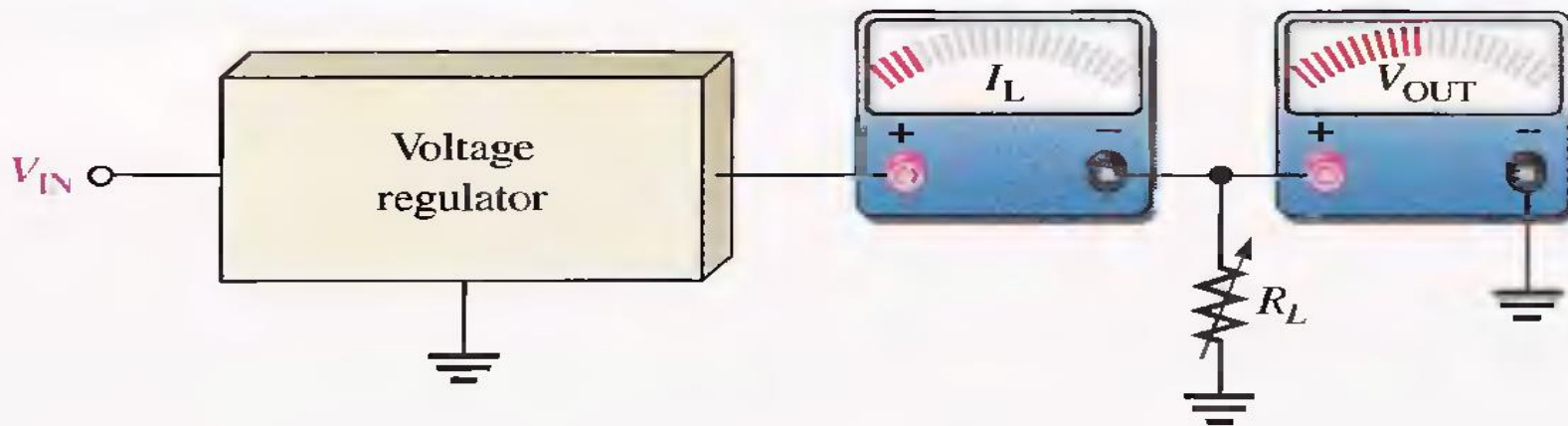


Decrease
(or increase)
in input voltage



No significant change
in output voltage

ỔN ÁP (VOLTAGE REGULATORS)

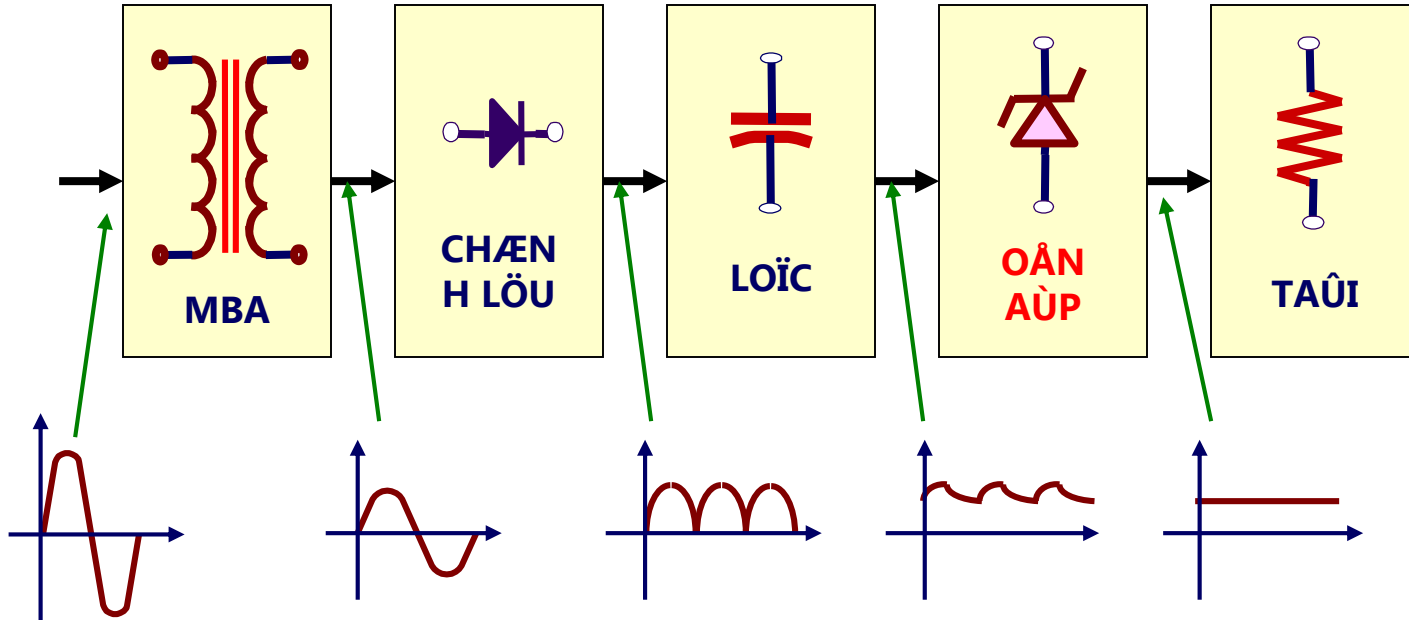


No change

Increase
(or decrease)

ỔN ÁP (VOLTAGE REGULATORS)

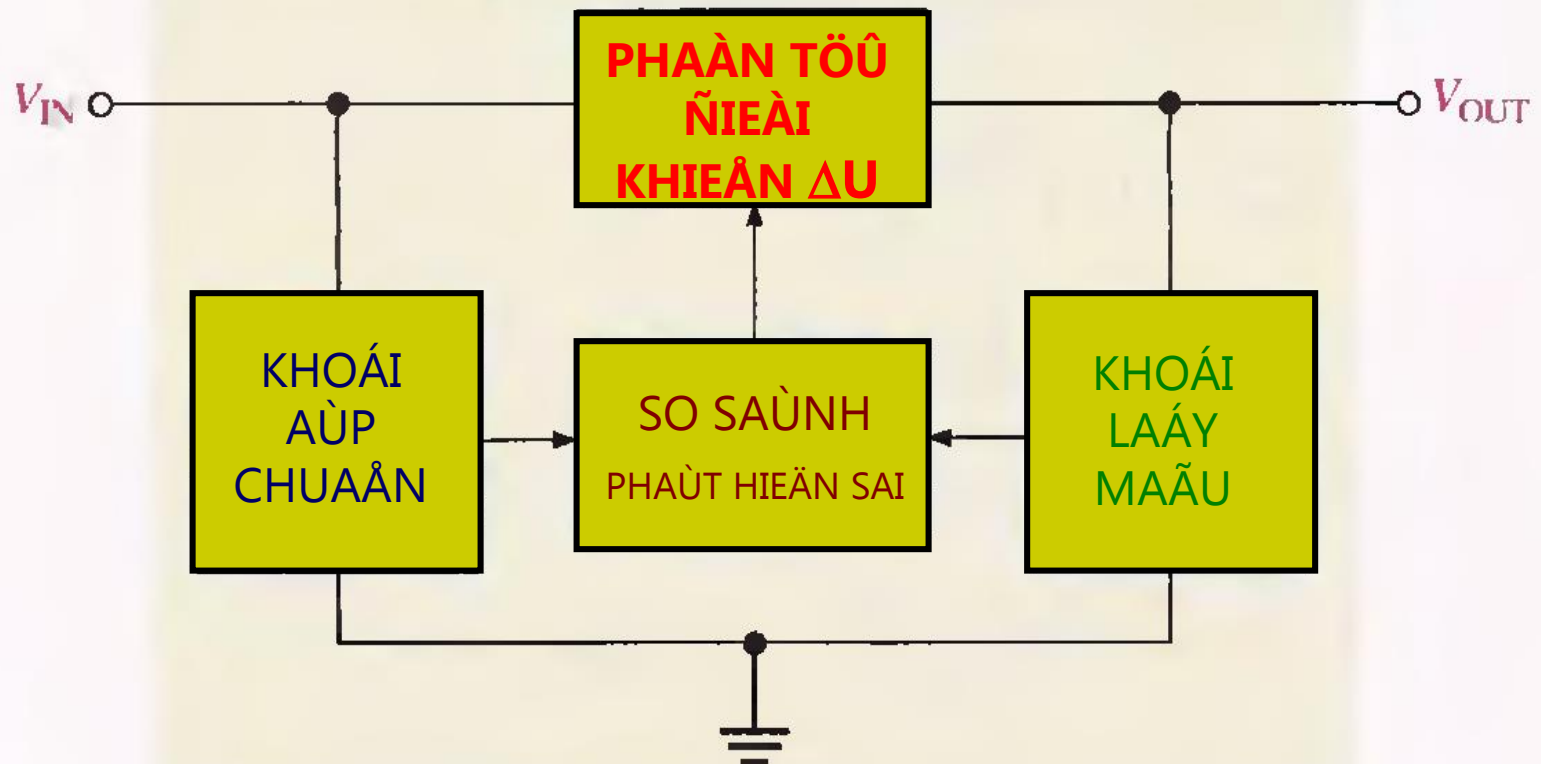
VỎ TRÍ ỔN ÁP TRONG KHOÁI NGUỒN CUNG CẤP :



ỔN ÁP (VOLTAGE REGULATORS)



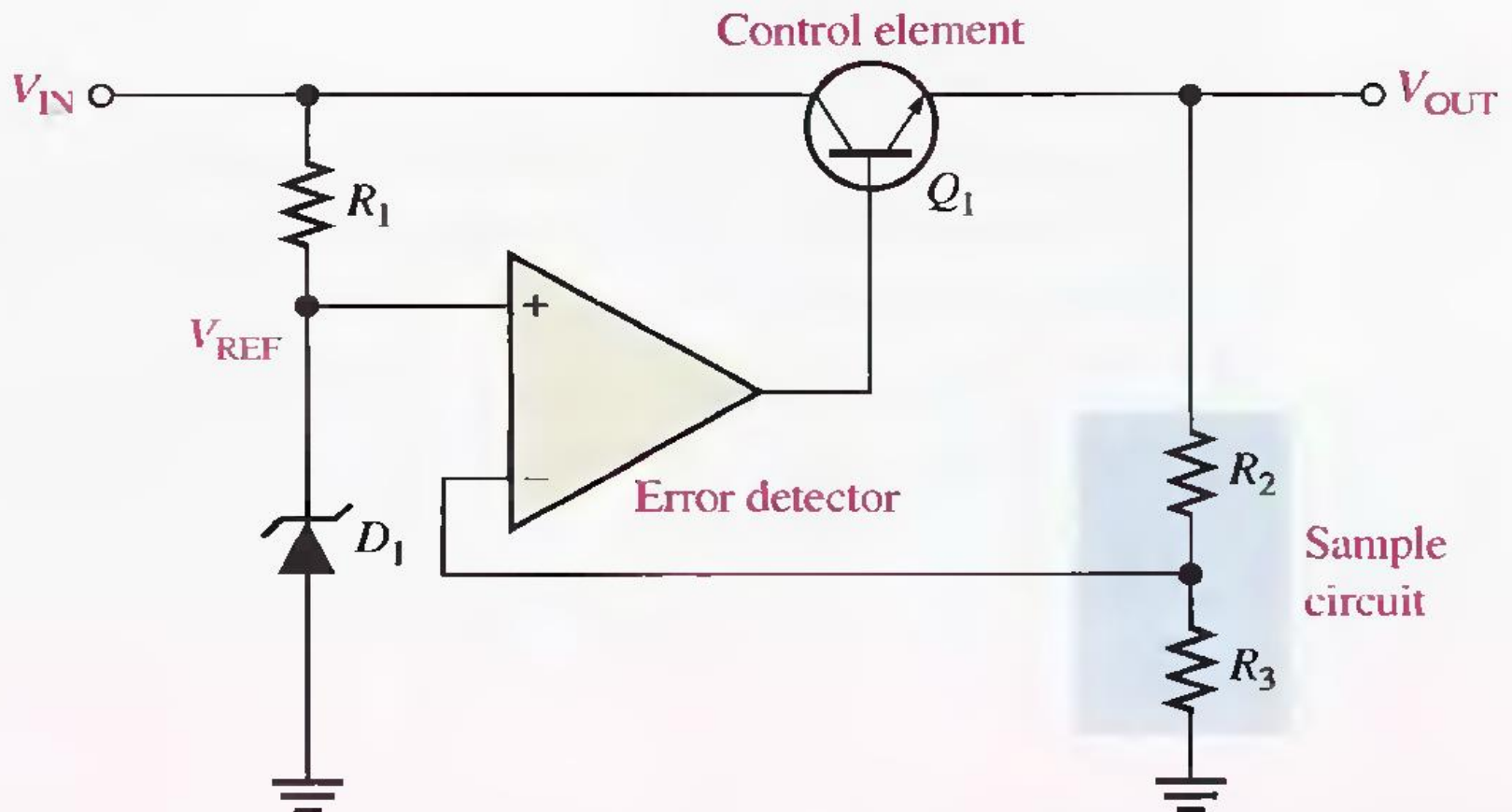
TOẢ CHÖÙC CAÙC BÖÅ PHAÄN KHOÁI OÄN AÙP NOÁI
TIEÁP :



ỔN ÁP (VOLTAGE REGULATORS)



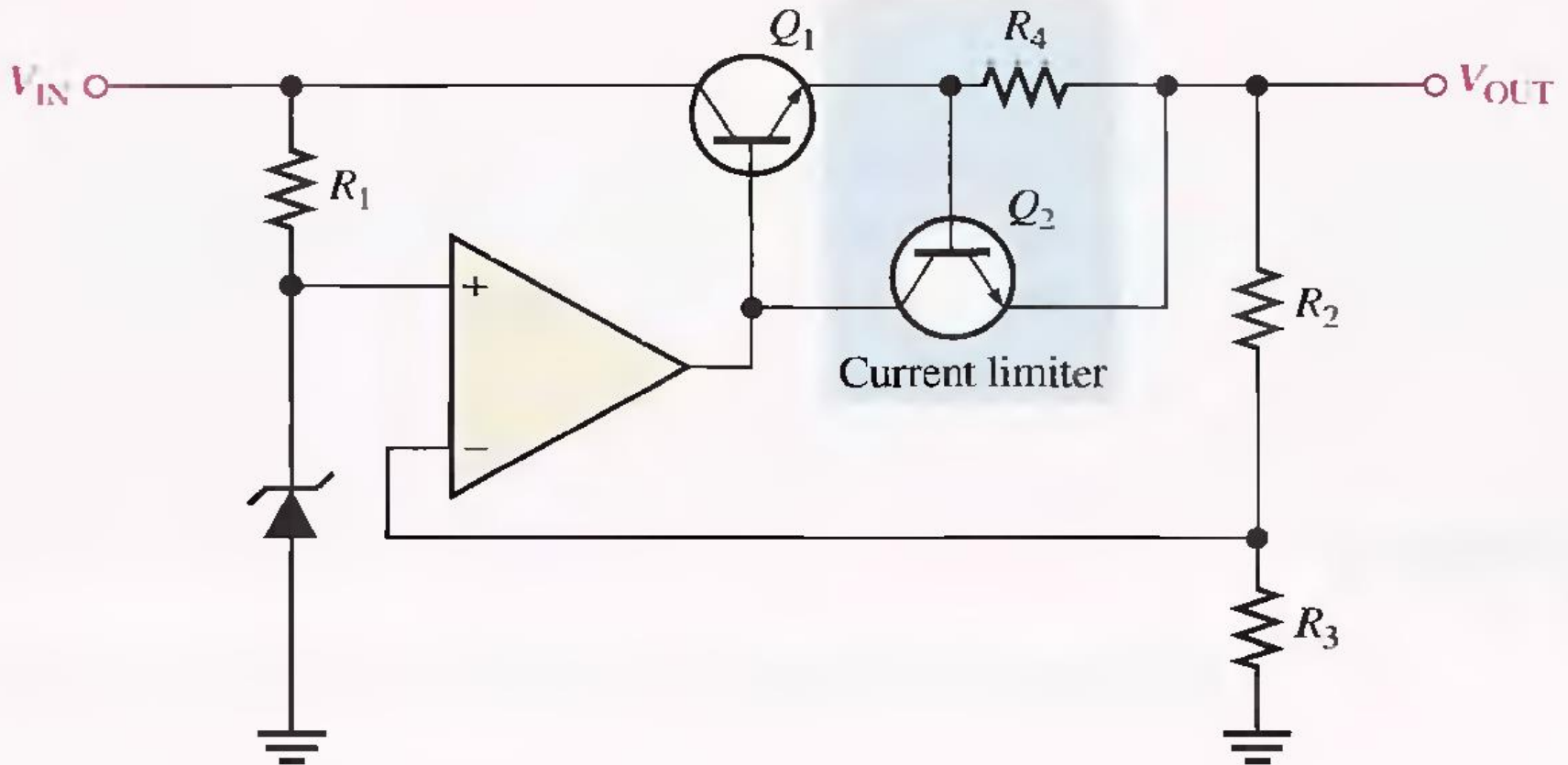
TOẢ CHÖÙC CAÙC BÖÅ PHAÄN KHOÁI OÄN AÙP NOÁI
TIEÁP :



ỔN ÁP (VOLTAGE REGULATORS)



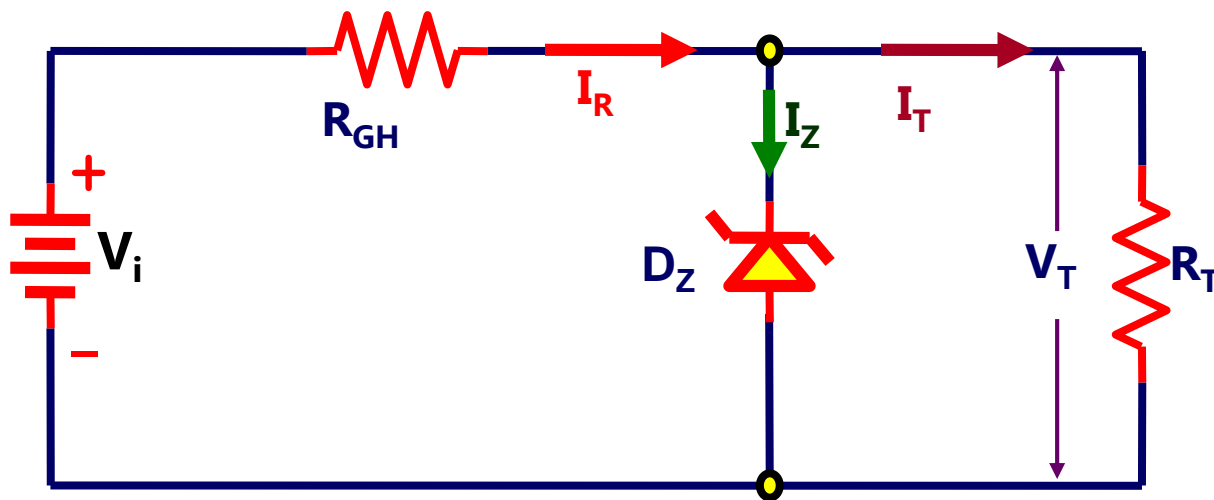
TOẢ CHÖÙC CAÙC BÖÅ PHAÄN KHOÁI OÄN AÙP NOÁI
TIEÁP :



ỔN ÁP (VOLTAGE REGULATORS)



1 SỐ DẠNG ỔN ÁP NỐI TIẾP RỜI ĐƠN GIẢN :



$$R_{GH} = \frac{V_{iMAX} - V_Z}{I_{ZMAX}}$$

ỔN ÁP $V_T = V_Z$

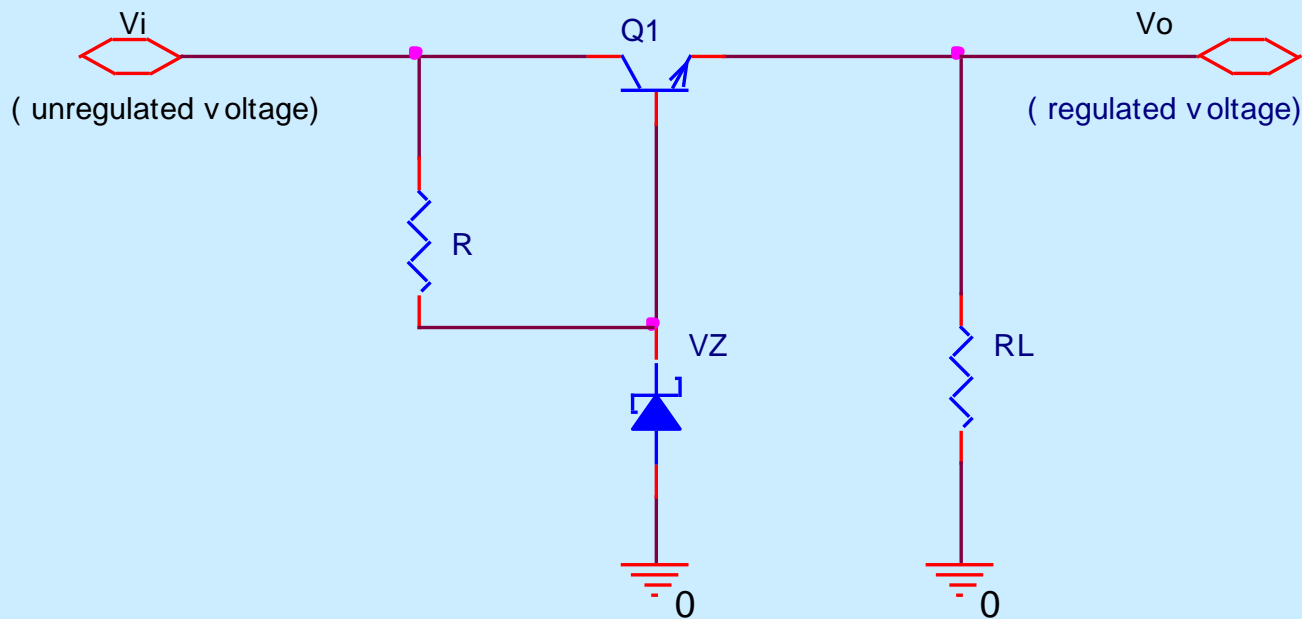
$$I_R = I_Z + I_T$$

CHỈ ỔN ÁP KHI:

$$V_i \frac{R_T}{R_{GH} + R_T} \geq V_Z$$

ỔN ÁP (VOLTAGE REGULATORS)

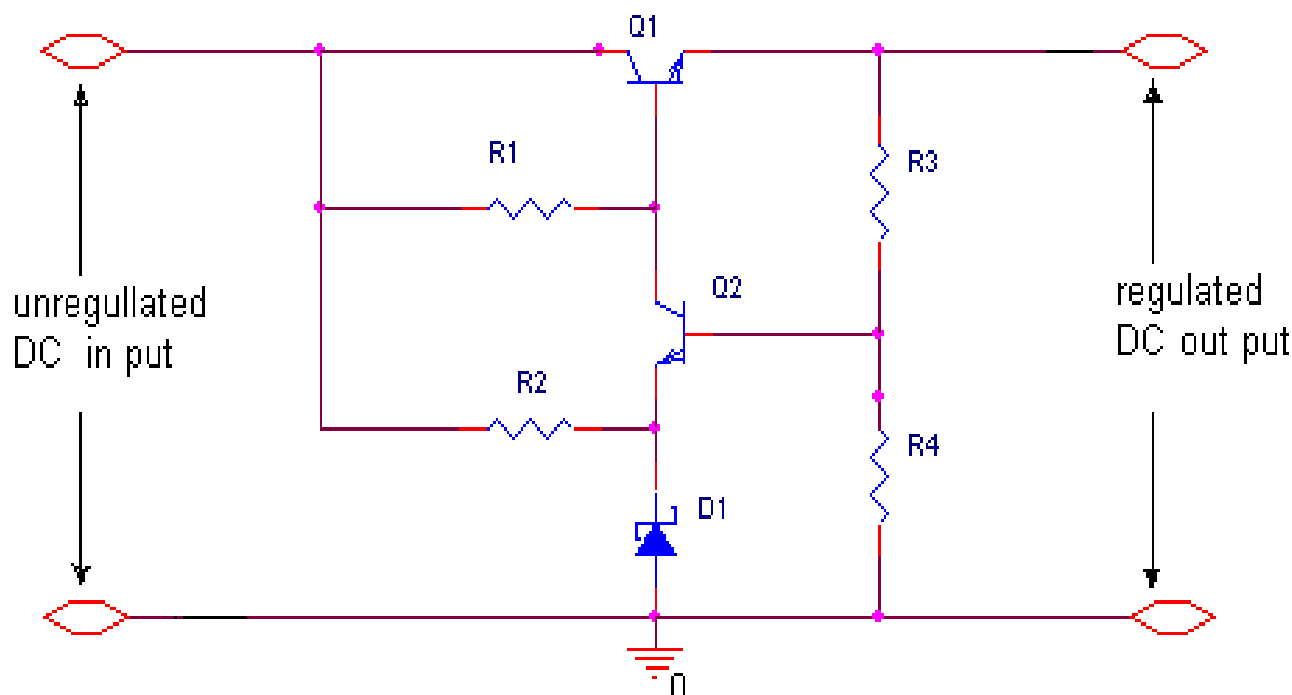
1 SỐ DẠNG ỔN ÁP NỐI TIẾP RỜI ĐƠN GIẢN :



$$V_T = V_Z - V_{BE}$$

ỔN ÁP (VOLTAGE REGULATORS)

1 SỐ DẠNG ỔN ÁP NỐI TIẾP RỜI ĐƠN GIẢN :

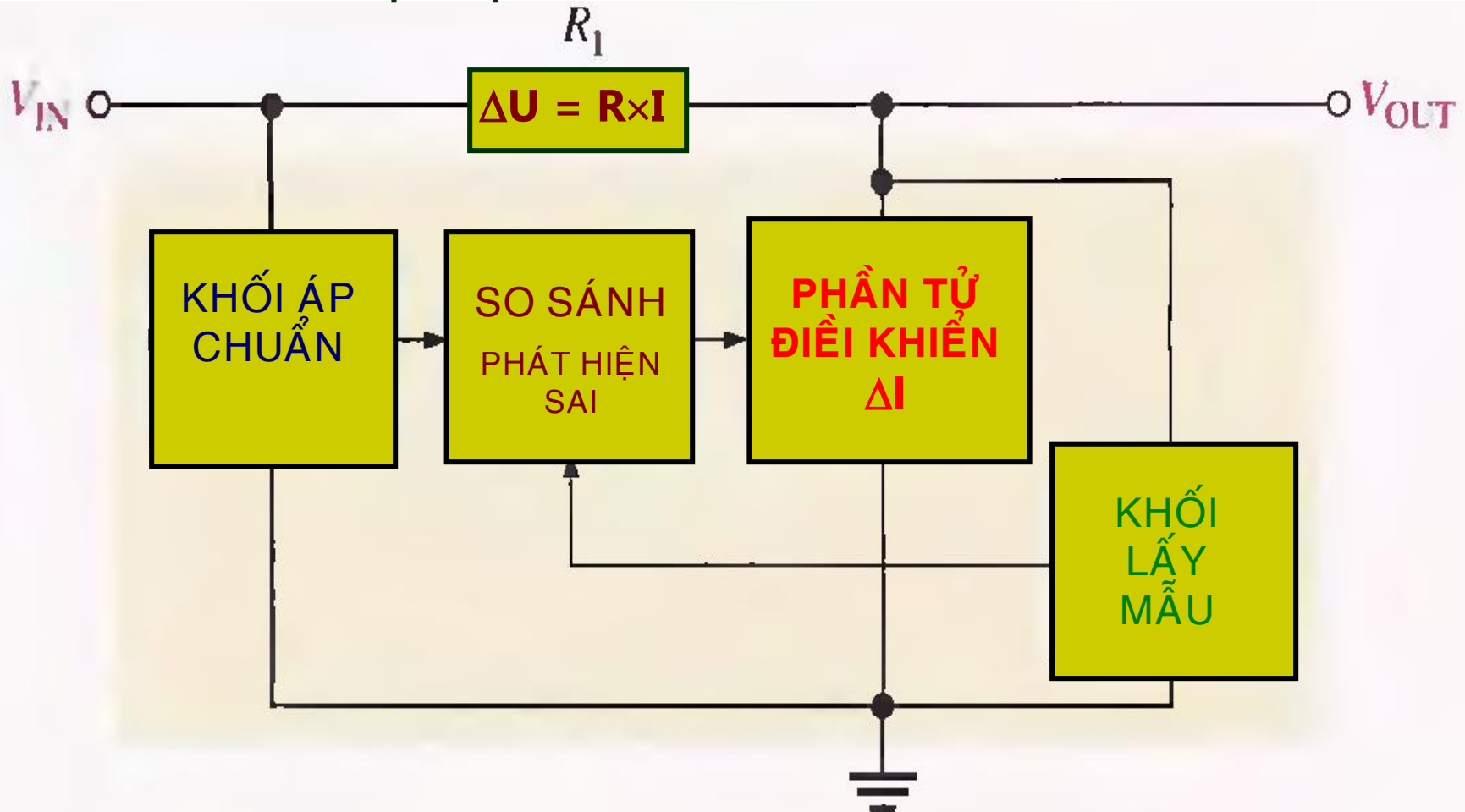


$$V_T = (V_Z + V_{BE}) \frac{R_3 + R_4}{R_4}$$

ỔN ÁP (VOLTAGE REGULATORS)

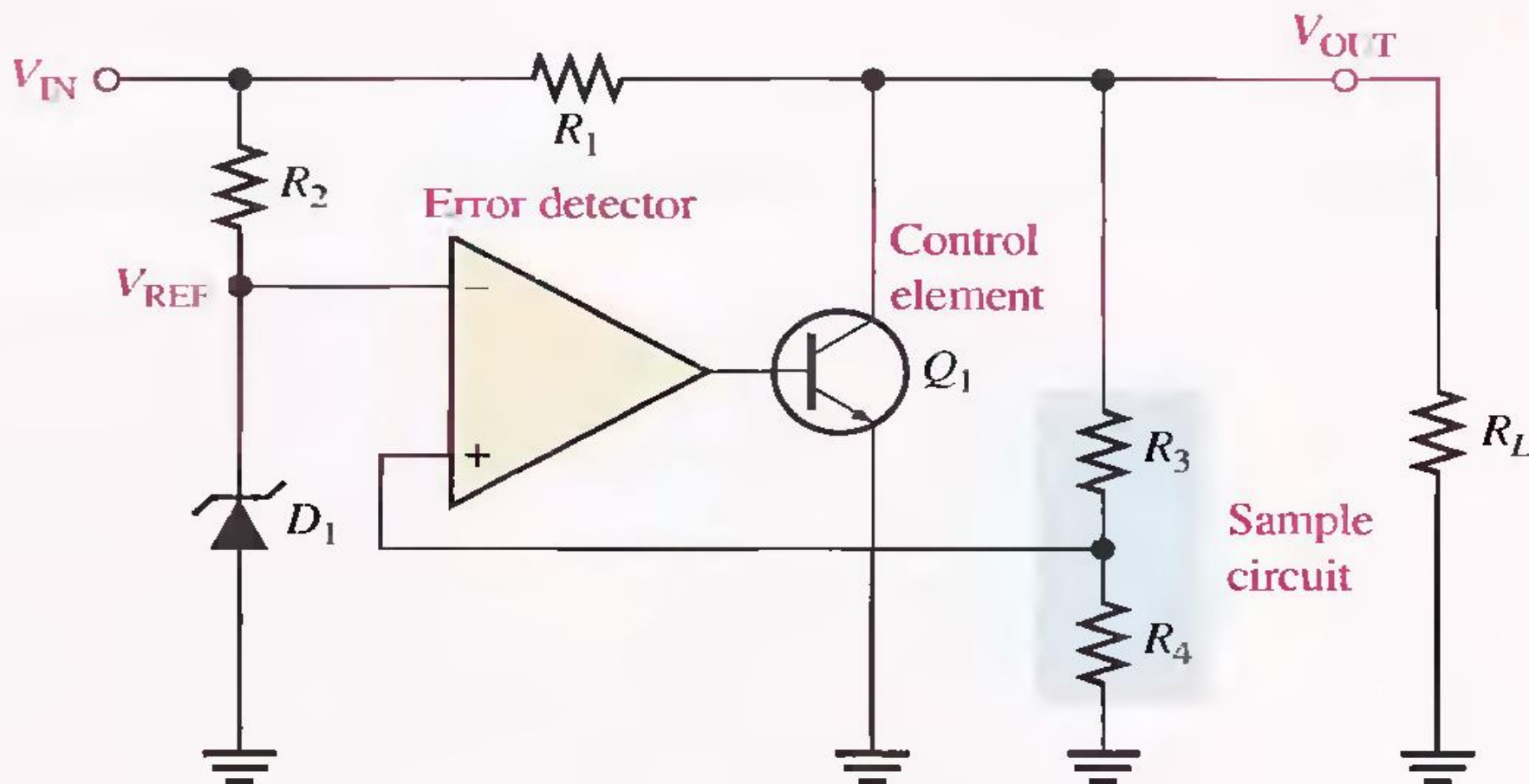


TỔ CHỨC CÁC BỘ PHẬN KHỐI ỔN ÁP SONG SONG :



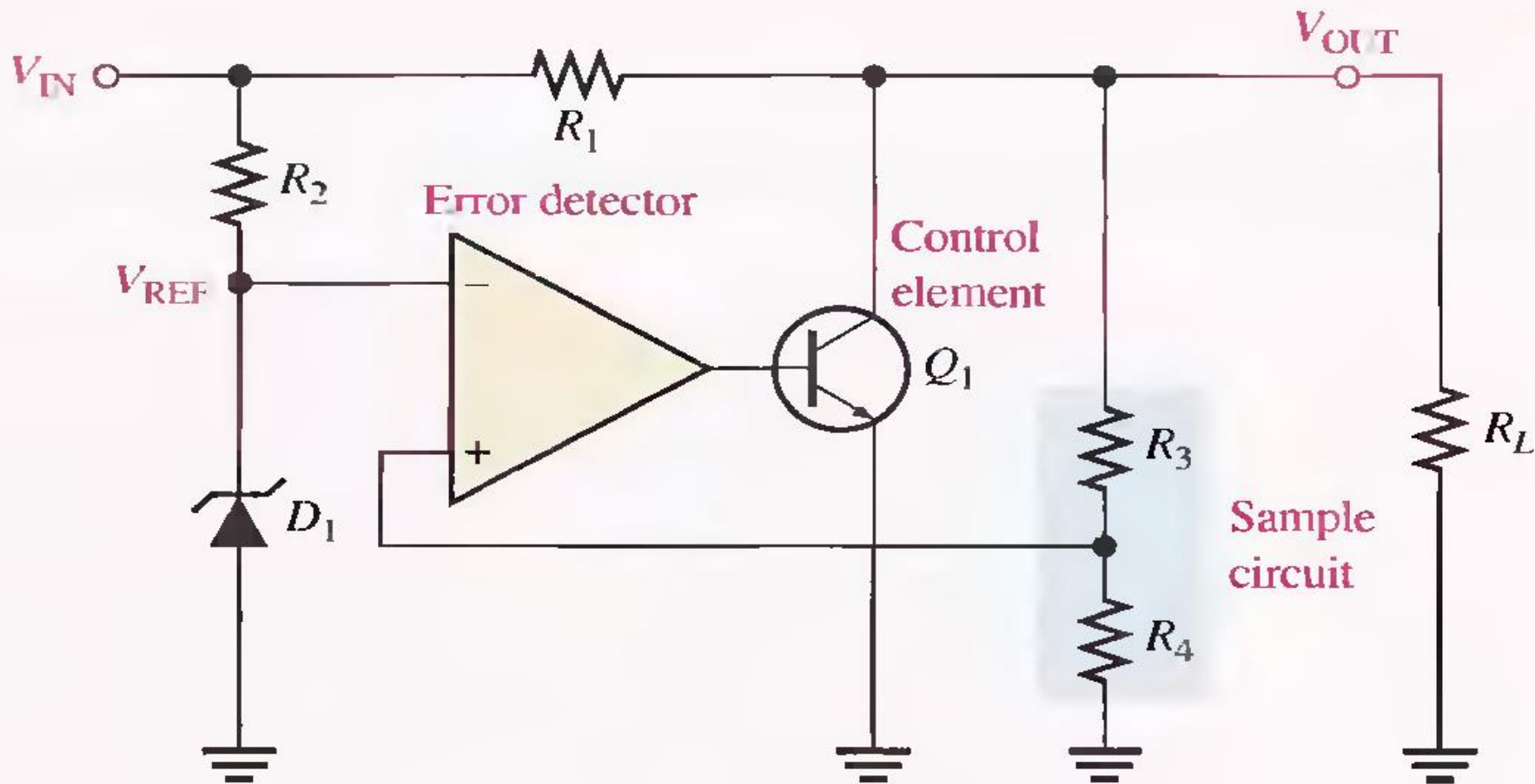
ỔN ÁP (VOLTAGE REGULATORS)

TỔ CHỨC CÁC BỘ PHẬN KHỐI ỔN ÁP SONG SONG :



ỔN ÁP (VOLTAGE REGULATORS)

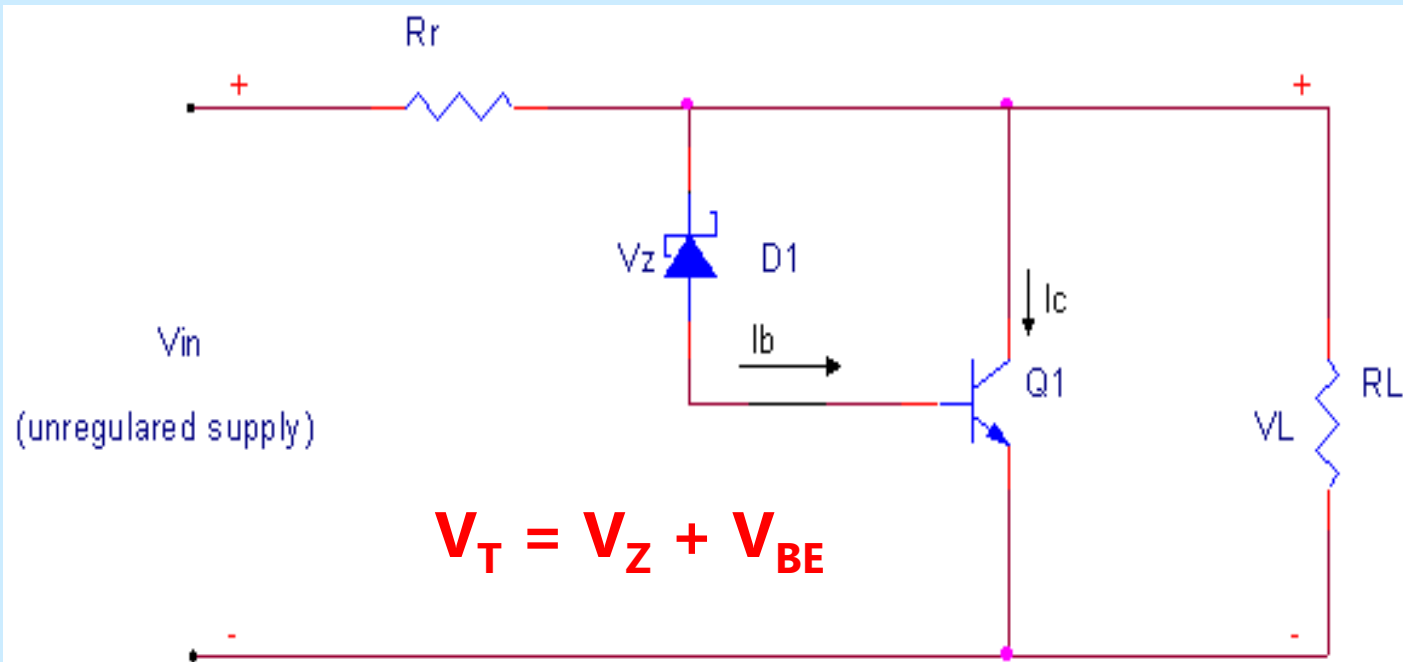
TỔ CHỨC CÁC BỘ PHẬN KHỐI ỔN ÁP SONG SONG :



ỔN ÁP (VOLTAGE REGULATORS)

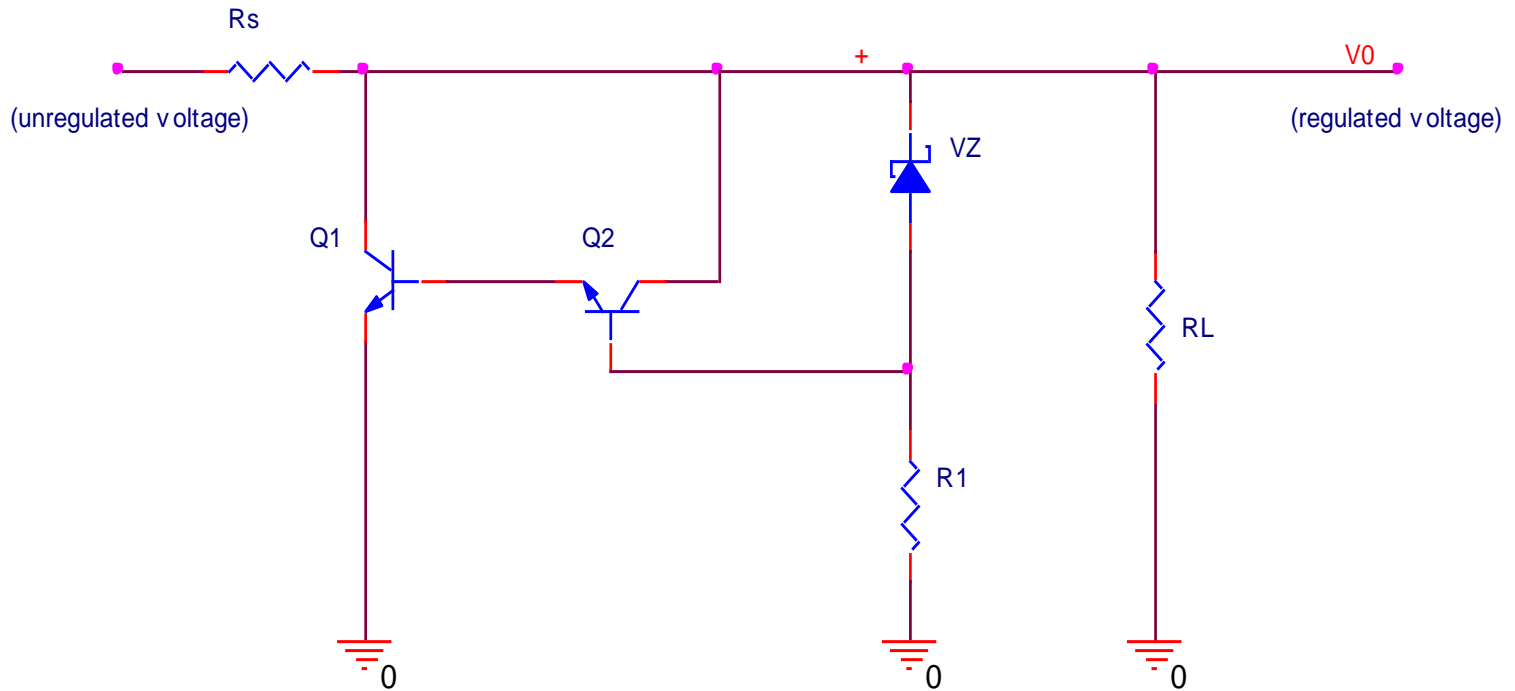


1 SỐ DẠNG ỔN ÁP SONG SONG RỜI ĐƠN GIẢN :

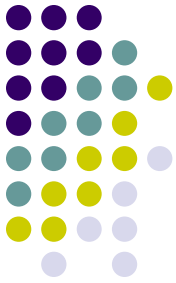


ỔN ÁP (VOLTAGE REGULATORS)

1 SỐ DẠNG ỔN ÁP SONG SONG RỜI ĐƠN GIẢN :



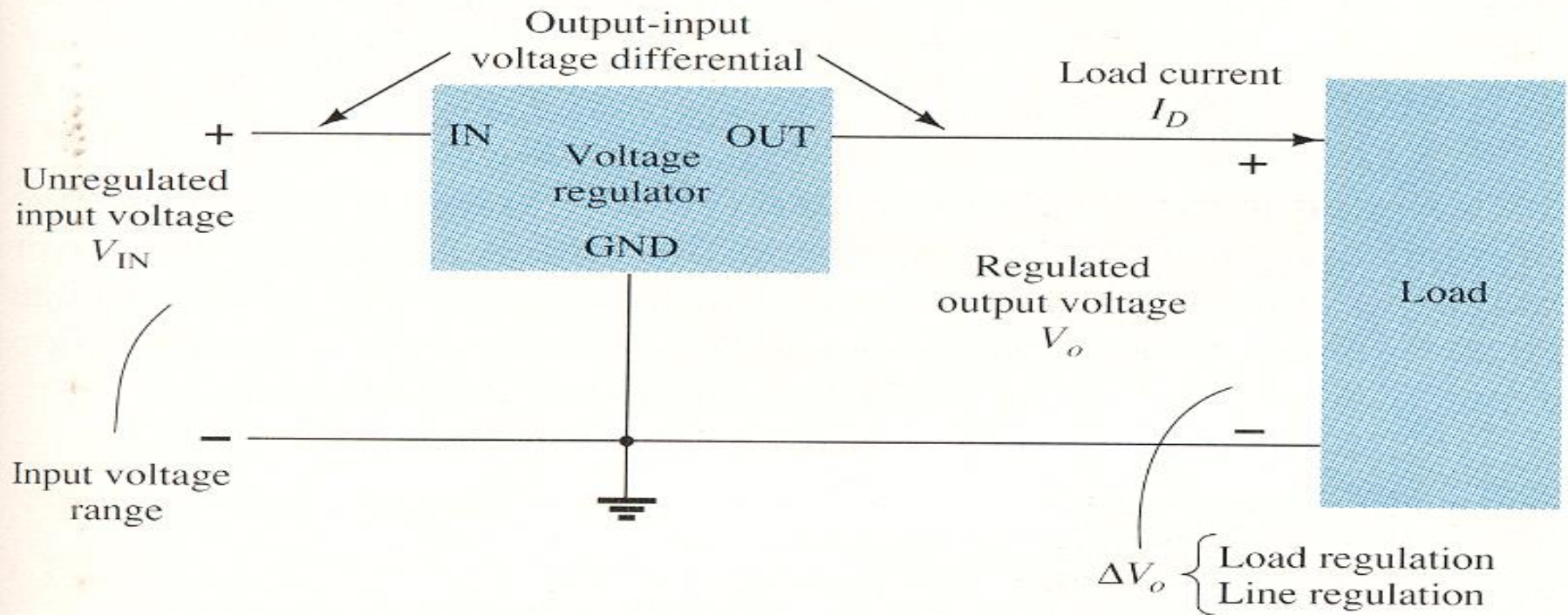
$$V_T = (V_Z + V_{BE1} + V_{BE2})$$





ỔN ÁP (VOLTAGE REGULATORS)

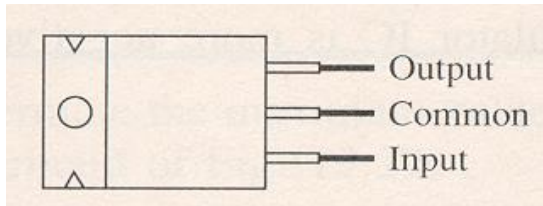
ỔN ÁP DƯƠNG IC



ỔN ÁP (VOLTAGE REGULATORS)

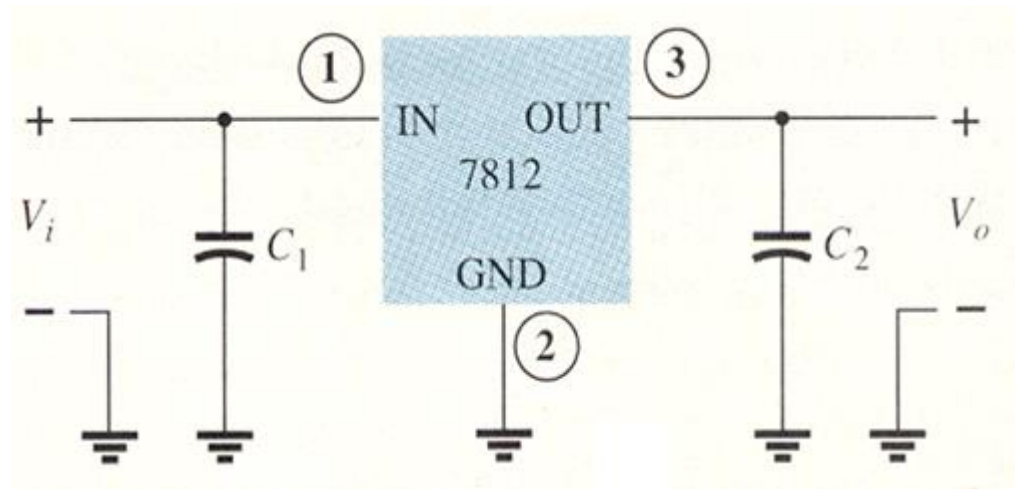


ỔN ÁP DƯƠNG IC 78xx



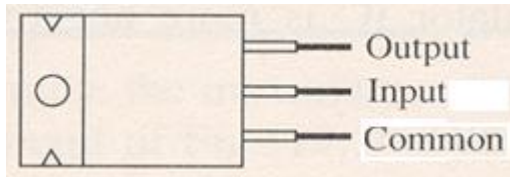
$$I_{out_{max}} = 1A$$

$$V_{in} > V_{out} + 2V : 3V$$

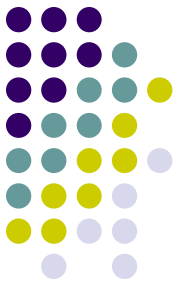
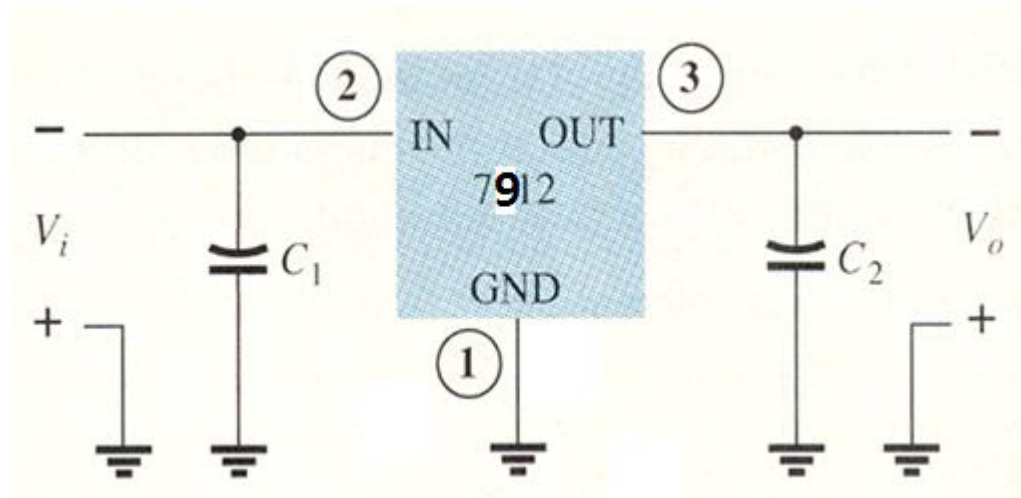


ỔN ÁP (VOLTAGE REGULATORS)

ỔN ÁP ÂM IC 79xx



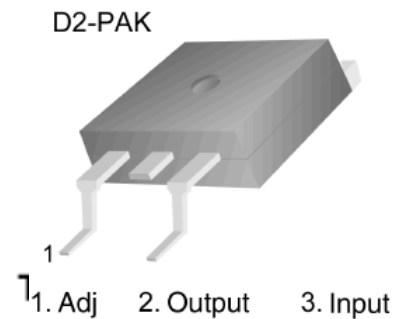
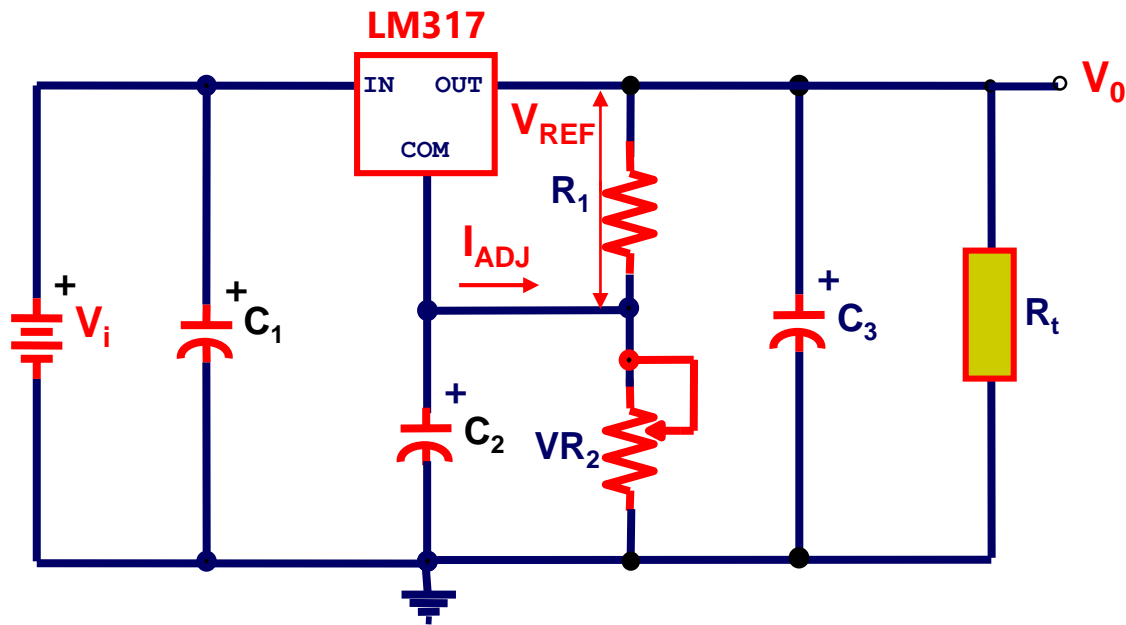
$$I_{out_{max}} = 1A$$



ỔN ÁP (VOLTAGE REGULATORS)



ỔN ÁP DƯƠNG IC ĐIỀU CHỈNH ĐƯỢC :

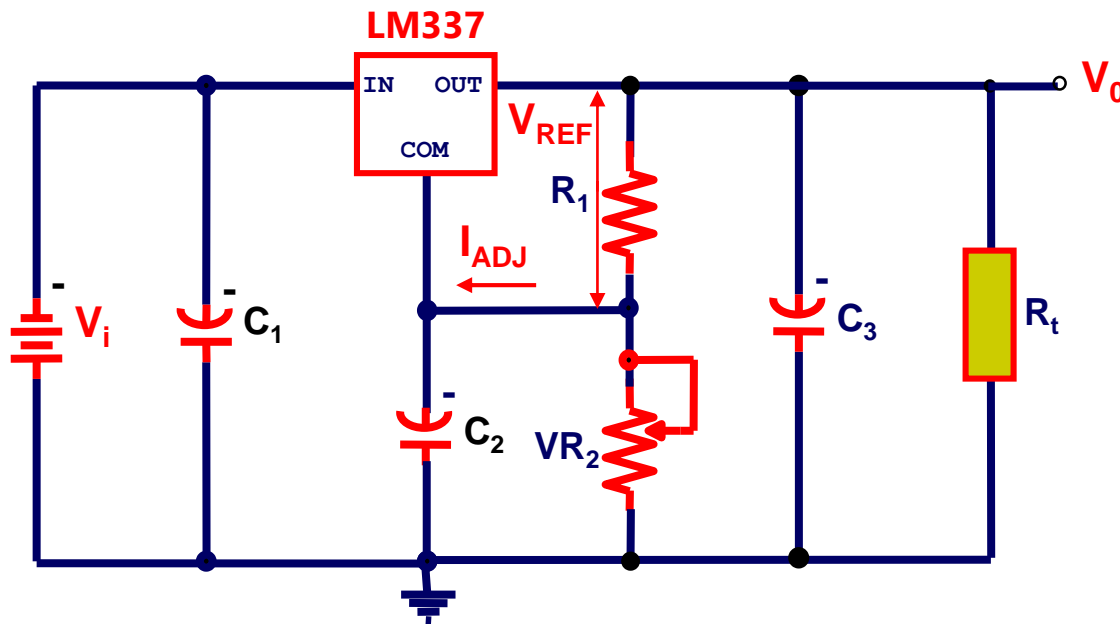


1. Adj 2. Output 3. Input

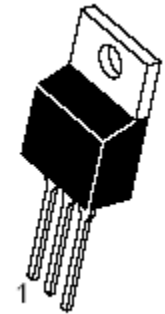
$$V_{OUT} = V_{REF} \left(1 + \frac{R_2}{R_1} \right) + I_{ADJ} R_2$$

ỔN ÁP (VOLTAGE REGULATORS)

ỔN ÁP ÂM IC ĐIỀU CHỈNH ĐƯỢC :



LM 337



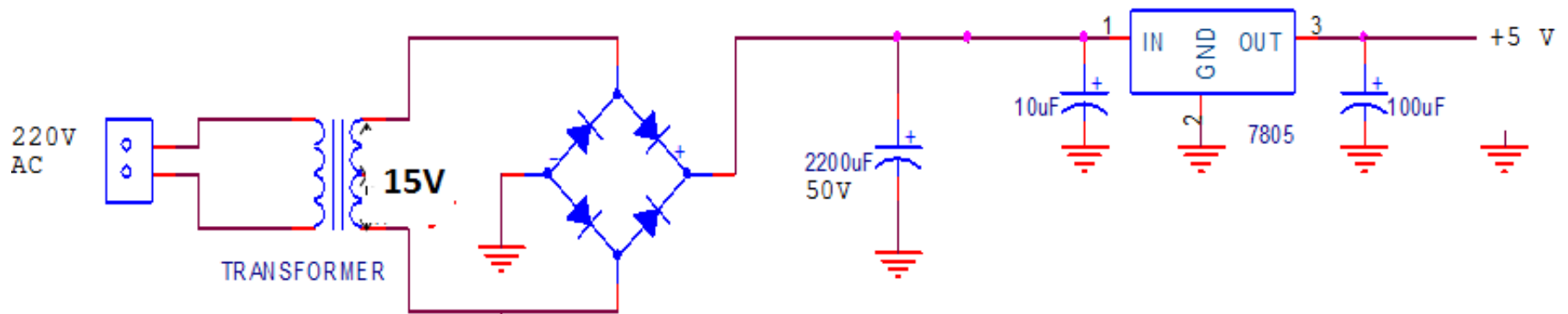
- Pin 1. Adjust
Pin 2. V_{in}
Pin 3. V_{out}

$$V_{OUT} = V_{REF} \left(1 + \frac{R_2}{R_1} \right) + I_{ADJ} R_2$$

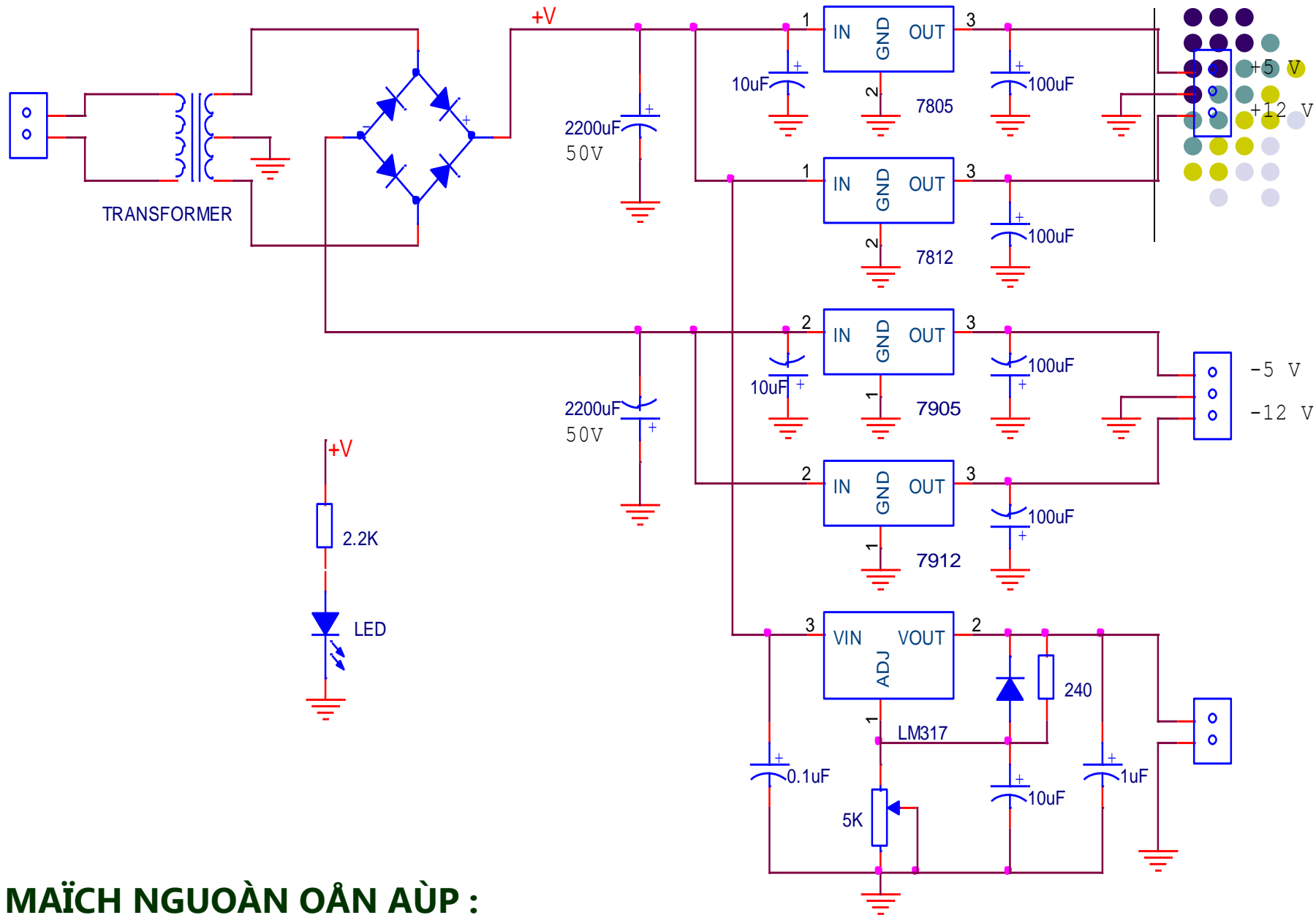
ỔN ÁP (VOLTAGE REGULATORS)



MẠCH NGUỒN ỔN ÁP 5V:



220V
AC



MAÏCH NGUỒN OÀN AÙP :