

AMPLIFICATOR 20W – CLASA A – REALIZAT CU TRANZISTORI



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Proiectul prezentat este un amplificator audio de clasa A care are la baza tranzistorii de putere TIP41(NPN) si TIP42(PNP).

Amplificatoarele din Clasa A, sunt cele mai utilizate amplificatoare datorita simplitatii schemei. Clasa A, inseamna "cea mai buna clasa" de amplificatoare datorita distorsiunilor mici. Acestea sunt cotate cu cel mai bun sunet din toate clasele de amplificare si cu cea mai buna liniaritate in raport cu celelalte clase.

Puterea generata de acest amplificator este de 20W la 8 Ohmi. Acesta trebuie alimentat de la o sursa de curent continuu de 22-24V la 3-4A.

Lista de componente necesare:

1 x Placa de test tip breadboard + fire de legatura

1 x R1 = 18k

1 x R2 = 18k

1 x R3 = 1k

1 x R4 = 1k

1 x R5 = 68 Ohm

1 x R6 = 1k

1 x R7 = 0.68 Ohm

1 x C1 = 2.2uF

1 x C2 = 33pF

1 x C3 = 330uF

1 x C4 = 220pF

1 x C5 = 2200uF

1 x T1 = BC557

1 x T2 = BC337

1 x T3 = BC327

1 x T4 = TIP42

1 x T5 = TIP41

3 x Contacte terminale

!!! Atentie, montajul are nevoie de radiatoare pentru tranzistorii T4 si T5.

Codul culorilor pentru rezistente se gaseste la adresa de mai jos. De asemenea, pentru identificarea rezistentelor puteti descarca programe similare si de pe alte site-uri.

<http://electrokits.ro/apps/codul-culorilor-pentru-rezistente.zip>

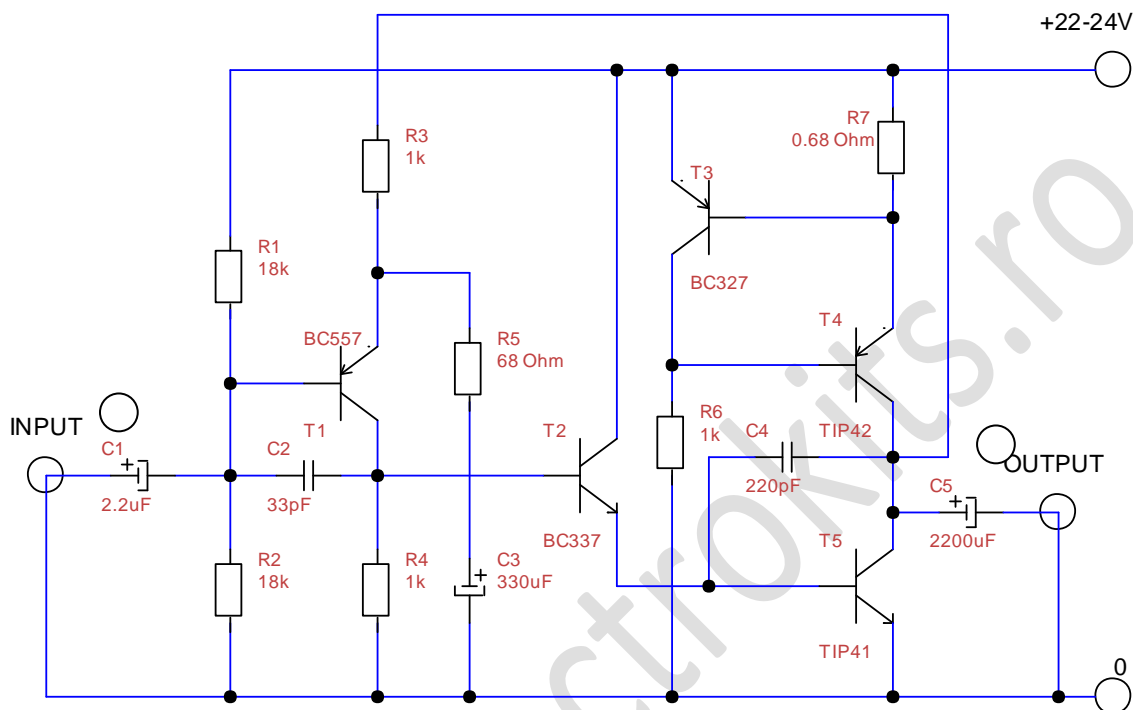
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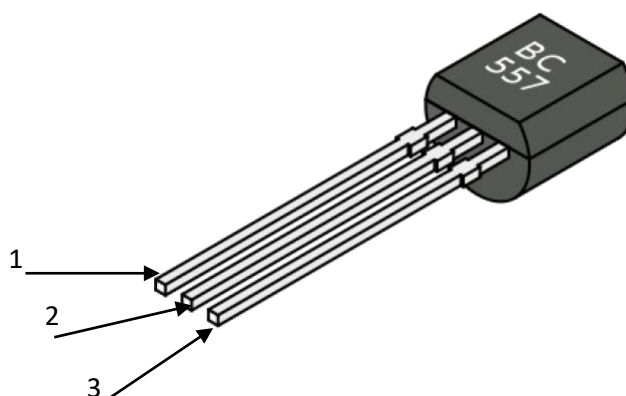
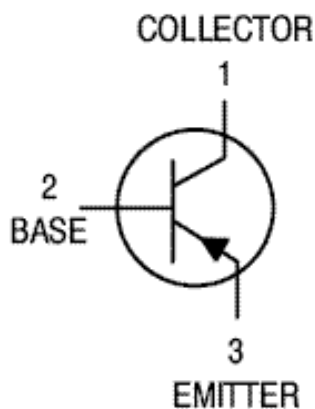
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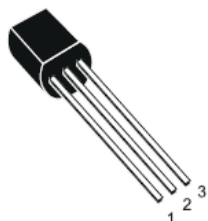
Pentru o mai buna intelegere a functionalitatii circuitului si pentru a realiza acest montaj pe breadboard vom avea nevoie de schema electronica prezentata mai jos:



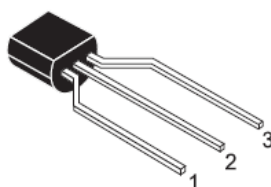
Configuratii pini BC557:



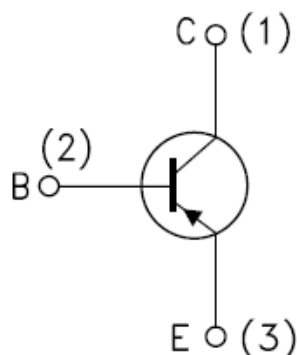
Configuratii pini BC327:



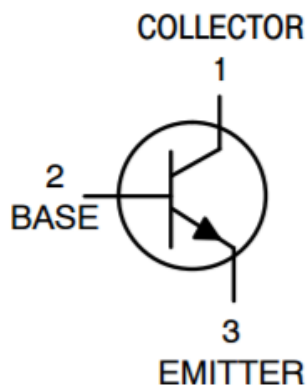
**TO-92
Bulk**



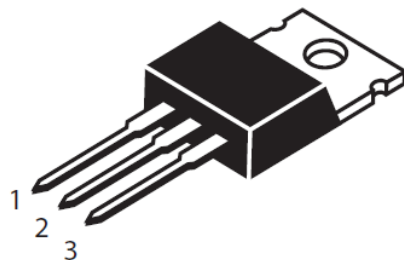
**TO-92
Ammopack**



Configuratii pini BC337:

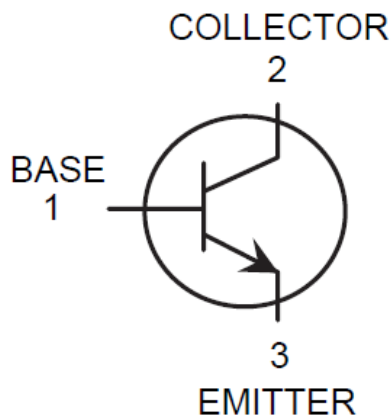


Configuratii pini TIP41:



- 1. BASE
- 2. COLLECTOR
- 3. EMITTER

TO-220

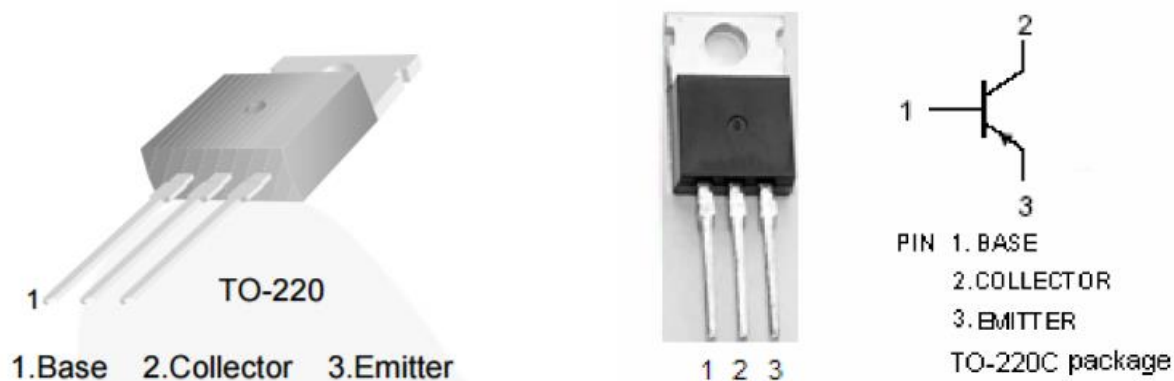


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Configuratii pini TIP42:



Conexiuni interne breadboard:

