

## RCA1B04, RCA1B05, RCA1B09

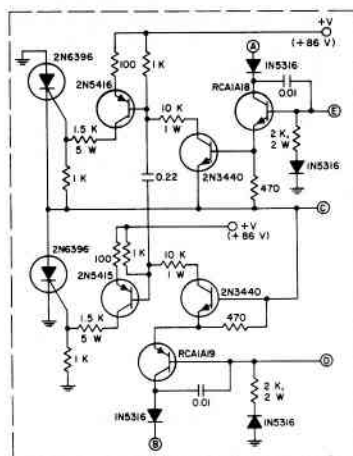
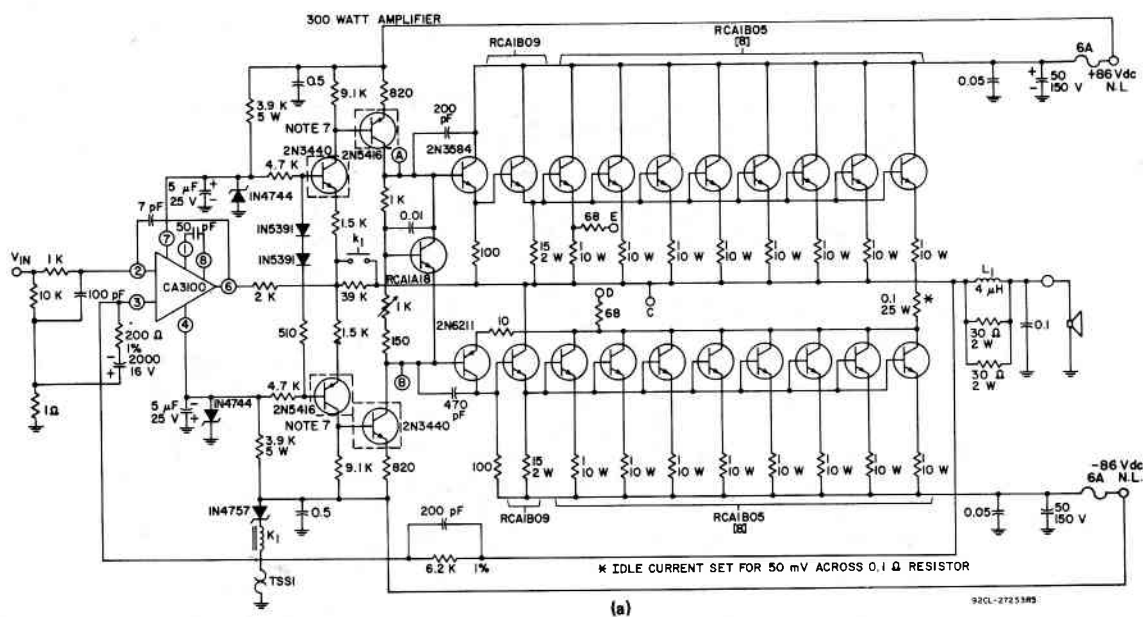


Fig. 13 — 300-W audio amplifier circuit featuring parallel output transistors: (a) basic amplifier circuit, (b) protection circuit.

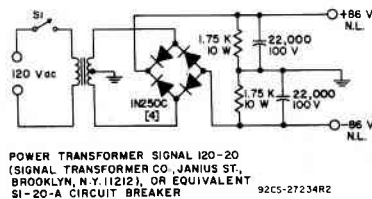


Fig. 14 — Power supply for 300-W audio-amplifier circuit shown in Fig. 13.

## Silicon Transistor Quasi-Complement Amplifiers with Pi-

RCA1B06 is an n-p-n pi-nu silicon transistor in JEDEC TO-3 package. This device is especially characterized for audio-amplifier applications and can be driven by either RCA1C03 or RCA1C04, n-p-n and p-n-p types, respectively. The 70-watt amplifier shown in Fig. 1 uses

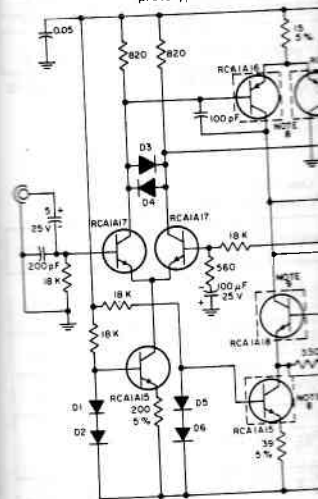
**MAXIMUM RATINGS, Absolute-Maximum Values:**  
COLLECTOR-TO-BASE VOLTAGE .....  
COLLECTOR-TO-EMITTER VOLTAGE .....  
With base open .....  
With external base-to-emitter resistance ( $R_{BE}$ ) = 100 $\Omega$  .....  
EMITTER-TO-BASE VOLTAGE .....  
COLLECTOR CURRENT .....  
BASE CURRENT .....  
TRANSISTOR DISSIPATION:  
At case temperatures up to 25°C .....  
At case temperatures above 25°C .....  
TEMPERATURE RANGE .....  
Storage & Operating Junction .....  
PIN TEMPERATURE (During Soldering):  
At distances  $\geq 1/32$  in. (0.8 mm) from case for 10 s max.

Type RCA1B06  
Package: JEDEC TO-3  
Construction: Silicon n-p-n

**ELECTRICAL CHARACTERISTICS**  
Unless Otherwise Specified

CHARACTERISTIC	TEST
$I_{CER}$	$V_{CE}$
$V_{CE0}$	$I_C =$
$f_T$	$I_C =$
$h_{FE}$	$I_C =$
$V_{CE(sat)}$	$I_C =$
$V_{BE}$	$I_C =$
$I_{S/b}$	$V_{CE}$

For characteristics curves and prototype 2N5840



**NOTES:**  
1. 100°C thermal cutout attached to heat sink for protection (Elmwood Sensor part No. 2455-BB-4).  
2. Power transformer: Signal 120-2 (parallel secondary) Transformer Co., 1 Junius St., Brooklyn, N.Y. 11212

Fig. 1 — 70-Watt amplifier circuit employing pi-nu con.