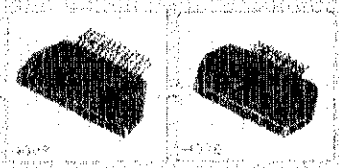


Case outline  
**STK 433, 435,**  
**436, 437, 439,**  
**441, 443**

thick film hybrid IC

2 CHANNEL 5 to 25W min  
 AF POWER AMP.



**Features**

- $\odot$  IMST, 2 Channels by 1 Power Supply.
- Small shock noise because of direct coupling emitter feedbacked.
- STK 433-105, 435-105, 436-105 and 441-105 are for the use of  $T_C=105^{\circ}\text{C}$ .
- AF output power STK 433: 5W min., STK 435: 7W min., STK 436: 10W min., STK 437: 10W min., STK 439: 15W min., STK 411: 20W min., STK 443: 25W min.

**MAXIMUM RATINGS/ $T_a=25^{\circ}\text{C}$**

|                                                       |              | STK 433       | STK 435       | STK 436       | STK 437       | STK 439       | STK 441       | STK 443       | unit                           |
|-------------------------------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------------|
| Maximum Supply Voltage (pin 7 to 4 or 12)             | $V_{CC}$ max | 32            | 39            | 50            | 50            | 56            | 63            | 70            | V                              |
| Operating Case Temperature                            | $T_C$        | 90            | 90            | 90            | 90            | 85            | 85            | 85            | $^{\circ}\text{C}$             |
| Storage Temperature                                   | $T_{stg}$    | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $-30$ to $100^{\circ}\text{C}$ |
| Allowable Load Shorting Time (in appointed condition) | $t_s$        | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | 2             | sec                            |

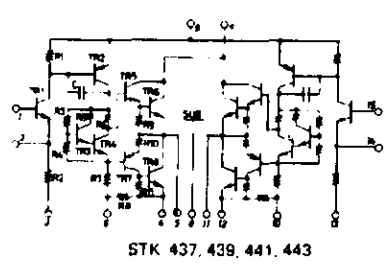
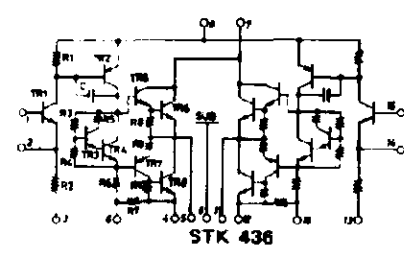
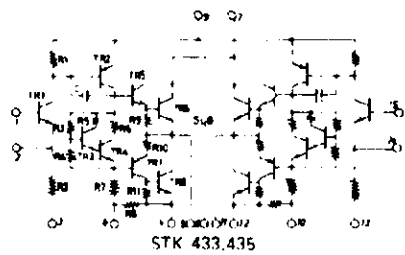
**RECOMMENDED OPERATION CONDITION/ $T_a=25^{\circ}\text{C}$**

|                            |          | STK 433       | STK 435       | STK 436       | STK 437       | STK 439       | STK 441       | STK 443 | unit |
|----------------------------|----------|---------------|---------------|---------------|---------------|---------------|---------------|---------|------|
| Recommended Supply Voltage | $V_{CC}$ | 23            | 27            | 32            | 33            | 39            | 44            | 49      | V    |
| Load Resistance            | $R_L$    | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | 8       | ohm  |

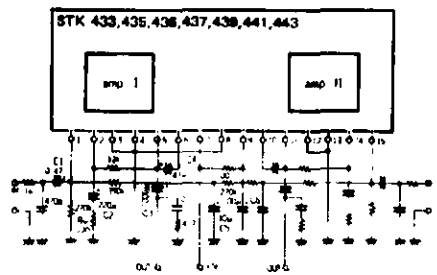
**OPERATION CHARACTERISTICS/ $T_a=25^{\circ}\text{C}$ , recommended condition,  $R_g=600$  ohm,  $V_G=40\text{dB}$**

|                   |           | STK 433                                | STK 435       | STK 436       | STK 437       | STK 439       | STK 441       | STK 443       | unit      |
|-------------------|-----------|----------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------|
| Quiescent Current | $I_{CCO}$ | $\rightarrow$                          | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | $\rightarrow$ | 120 mAmax |
| Output Power      | $P_O$     | THD=1%<br>$f=1\text{kHz}$              | 5             | 7             | 10            | 10            | 15            | 20            | 25 Wmin   |
| Distortion        | THD       | $P_O=0.1\text{W}$ ,<br>$f=1\text{kHz}$ | 0.5           | 0.5           | 0.3           | 0.2           | 0.2           | 0.3           | 0.3 %max  |
| Input Resistance  | $r_i$     | $P_O=0.1\text{W}$                      | 110k          | 110k          | 120k          | 110k          | 110k          | 110k          | ohm       |

**EQUIVALENT CIRCUIT**



**APPLICATION: AF Power Amp.**



|    | STK 433 | STK 435 | STK 436 | STK 437 | STK 439 | STK 441 | STK 443 |
|----|---------|---------|---------|---------|---------|---------|---------|
| C1 | 16V     | 25V     | 35V     | 35V     | 35V     | 30V     | 35V     |
| C2 | 10V     | 25V     | 25V     | 25V     | 25V     | 25V     | 35V     |
| C3 | 18V     | 25V     | 35V     | 35V     | 35V     | 60V     | 50V     |
| C4 | 18V     | 16V     | 25V     | 25V     | 25V     | 35V     | 50V     |
| C5 | 25V     | 25V     | 35V     | 35V     | 35V     | 35V     | 50V     |
| C6 | 25V     | 25V     | 50V     | 60V     | 63V     | 63V     | 80V     |

See the operation characteristics on this specification