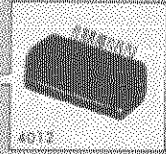


# STK-040, 041, 043

thick film hybrid IC

10, 15, 20W min AF POWER AMP.



These are scheduled to be discontinued in the near future.

### Features

- © IMST, 2 Channel by 2 Power Supply.
- AF Output Power STK-040: 10 W min.  
STK-041: 15 W min.  
STK-043: 20 W min.
- STK-043-105 are for the use of  $T_C=150^\circ\text{C}$ .

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

|                              |   | STK-040       | STK-041     | STK-043      | unit             |
|------------------------------|---|---------------|-------------|--------------|------------------|
| Maximum Supply Voltage       | $V_{CC}$ max  | $\pm 25$      | $\pm 29$    | $\pm 32.5$   | V                |
| Operating Case Temperature   | $T_C$   | $\rightarrow$ | 90          | $\leftarrow$ | $^\circ\text{C}$ |
| Storage Temperature          | $T_{stg}$   | $\rightarrow$ | -30 to +100 | $\leftarrow$ | $^\circ\text{C}$ |
| Allowable Load Shorting Time | $t_s$ recommended operation condition, rated power output $f=50\text{Hz}$ | $\rightarrow$ | 2           | $\leftarrow$ | sec              |

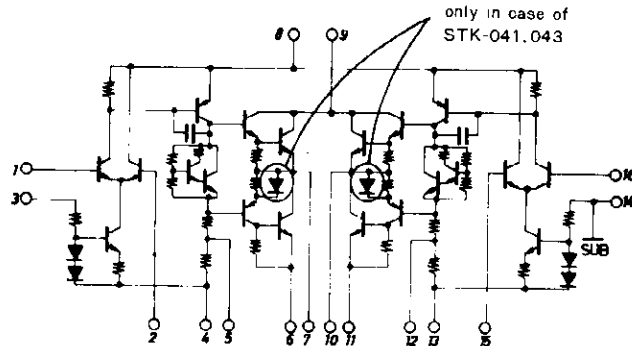
### RECOMMENDED OPERATION CONDITION / $T_a=25^\circ\text{C}$

|                            |          | STK-040       | STK-041  | STK-043      | unit |
|----------------------------|----------|---------------|----------|--------------|------|
| Recommended Supply Voltage | $V_{CC}$ | $\pm 16.5$    | $\pm 20$ | $\pm 22$     | V    |
| Load Resistance            | $R_L$    | $\rightarrow$ | 8        | $\leftarrow$ | ohm  |

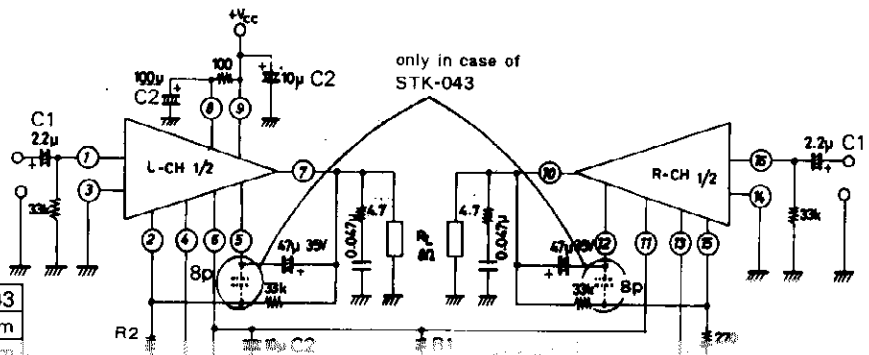
### OPERATION CHARACTERISTICS / $T_a=25^\circ\text{C}$ , recommended $V_{CC}$ supplied, $R_L=8$ ohm, $R_g=600$ ohm $V_G=41.5$ dB (STK-040), $38.5$ dB (STK-041, 043)

|                    |           |                                 | STK-040       | STK-041   | STK-043      | unit   |
|--------------------|-----------|---------------------------------|---------------|-----------|--------------|--------|
| Quiescent Current  | $I_{cco}$ |                                 | $\rightarrow$ | 120       | $\leftarrow$ | mA max |
| Output Power       | $P_O$     | THD=0.9%, $f=1$ kHz             | 10            | —         | —            | W min  |
|                    |           | THD=0.5%,<br>$f=20$ to $20$ kHz | —             | 15        | —            | W min  |
|                    |           | THD=0.5%, $f=1$ kHz             | —             | —         | 20           | W min  |
| Distortion         | THD       | $P_O=1$ W, $f=1$ kHz            | $\rightarrow$ | 0.2       | $\leftarrow$ | % max  |
| Frequency Response | —         | $P_O=0.1$ W, -3 dB              | $\rightarrow$ | 20 to 50k | $\leftarrow$ | Hz     |
| Input Resistance   | $r_i$     | $P_O=0.1$ W                     | $\rightarrow$ | 32k       | $\leftarrow$ | ohm    |

### EQUIVALENT CIRCUIT



### APPLICATION: 10, 15, 20W min 2 Channel AF Power Amp.



|    | STK-040 | STK-041 | STK-043 |
|----|---------|---------|---------|
| R1 | 560 ohm | 100 ohm | 100 ohm |
| R2 | 270 ohm | 390 ohm | 390 ohm |

