

D.P.P. (DARLINGTON POWER PACK) thick film hybrid IC CIRCUIT DRAWING No.6001~6003

OUTPUT STAGE OF AF POWER AMP.

Features


General output stage of power amplifier has a difficult and complex problem about heat sink designing and its setting. Sanyo's D.P.P. intends to decrease electronic parts and rationalize a manufacturing process by designing IC of only output stage of power amplifier.

- IMST system.
- Output stage for AF high power amplifier.
- Dual power supply.

- Darlington type pure / quasi-complementary circuit.
- These same pin assignment and pin interval lead to standardize a printed board.
- Metal substrate use IMST[®] makes good thermal stability.
- Able to design freely previous section of power amplifier. This leads tone control designing.

| Type Number | Maximum Ratings at Ta=25°C | | | | | | | | | | Operation Characteristics at Ta=25°C | | |
|--------------------------------------------------------------|----------------------------|--------------------------------------------|-------------------------------------|--------------------------------------|----------------------|--------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|--------------------------------------|--|--|
| | Case Outline | Maximum Supply Voltage V _{CCmax.} | Junction Temperature T _J | Storage Temperature T _{stg} | Thermal Resistance θ | Collector Current I _{Cmax.} | Allowable Load Spurring Time t _s | Supply Voltage at Output P _L -80 | Output Power P _o f _s -20 to 20kHz | Total Harmonic Distortion THD f _s -20 to 20kHz | Quiescent Current I _{qcc} | | |
| | V | °C | °C | °C/W | A | sec | V | W | % | mA | | | |
| 1-Channel Darlington Power Pack (Without emitter resistance) | | | | | | | | | | | | | |
| STK0080 | 4006 | ±65 | 150 | -30 to +105 | 1.3 | 10 | - | ±46 | 80 min. | 0.1 max. | 40 typ, 80 max. | | |
| STK0100 | 4006 | ±75 | 150 | -30 to +105 | 1.1 | 12 | - | ±50 | 100 min. | 0.1 max. | 40 typ, 80 max. | | |
| 1-Channel Darlington Power Pack (With emitter resistance) | | | | | | | | | | | | | |
| STK1030 | 4004 | ±40 | 150 | -30 to +105 | 2.4 | 5 | 2 | ±28.5 | 30 min. | 0.02 max. | 40 typ, 80 max. | | |
| STK1040 | 4004 | ±48 | 150 | -30 to +105 | 1.8 | 7 | 2 | ±33 | 40 min. | 0.02 max. | 40 typ, 80 max. | | |
| STK1050 | 4004 | ±53 | 150 | -30 to +105 | 1.8 | 7 | 2 | ±36 | 50 min. | 0.02 max. | 40 typ, 80 max. | | |
| STK1060 | 4004 | ±56 | 150 | -30 to +105 | 1.6 | 10 | - | ±40 | 60 min. | 0.02 max. | 40 typ, 80 max. | | |
| STK1070 | 4006 | ±60 | 150 | -30 to +125 | 1.3 | 10 | - | ±43 | 70 min. | 0.02 max. | 40 typ, 80 max. | | |
| 2-Channel Darlington Power Pack (With emitter resistance) | | | | | | | | | | | | | |
| STK2230 | 4015 | ±48 | 150 | -30 to +105 | 2.1 | 4 | 2 | ±30 | 30x2 min. | 0.01 max. | 35 typ, 80 max. | | |
| STK2240 | 4015 | ±54 | 150 | -30 to +105 | 1.8 | 5 | 2 | ±33.5 | 40x2 min. | 0.01 max. | 35 typ, 80 max. | | |
| STK2250 | 4015 | ±59 | 150 | -30 to +105 | 1.8 | 5 | 2 | ±37 | 50x2 min. | 0.01 max. | 35 typ, 80 max. | | |

STK075 SERIES thick film hybrid IC CIRCUIT DRAWING No.6004

20 TO 35W MIN AF POWER AMP.  4007

Features

- © IMST, 1 Channel by 2 Power Supplies.
- AF output power STK 077: 20W min., STK 078: 24W min., STK 080: 30W min., STK 082: 35W min.

- Differential amp. constant current driving.
- Capable of tone controlling.
- STK 078-105 and STK 082-105 are for the use of T_C=105°C.

STK084,085-105 086 thick film hybrid IC CIRCUIT DRAWING No.6005

50 TO 70W MIN AF POWER AMP.  4007(STK084,086) 4030(STK085-105)

Features

- © IMST, 1 Channel by 2 Power Supply.
- AF Output Power STK 084: 50 Wmin. STK 085-105: 60 Wmin. STK 086: 70 Wmin.

- Capable of setting protector for load shorting and tone controller.