



No. 1153

STK0100II



Thick Film Hybrid Integrated Circuit
100W MIN AF POWER AMP. OUTPUT STAGE (DPP)

Features

- Dual supplies, 1 channel
- 3-stage Darlington configuration (Symmetrical complementary circuit)
- Metal substrate makes good thermal stability because of built-in temperature compensator.
- 100W min AF power amp. output stage (DPP) for very low distortion
- Pins arranged in one direction enables standardization of external printed circuit board.

Maximum Ratings/ $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	unit
Maximum supply voltage	V_{CC} max	± 75	V
Thermal resistance	θ_{j-c}	1.0	$^\circ\text{C}/\text{W}$
Collector current	I_C	15	A
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	$-30 \sim +105$	$^\circ\text{C}$

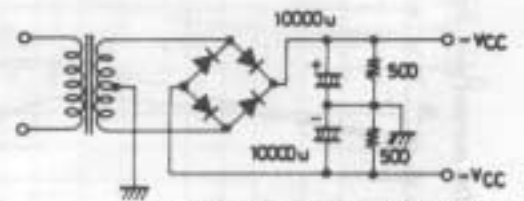
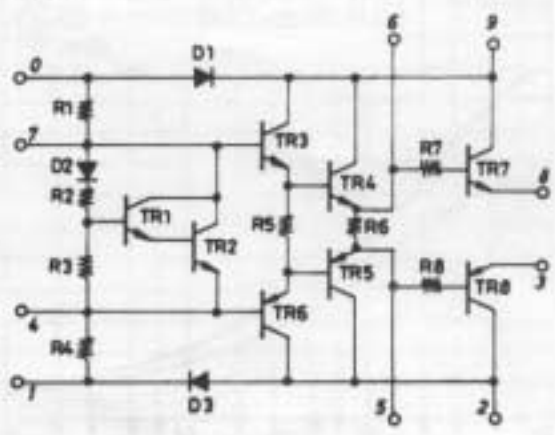
Recommended Operating Conditions/ $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	unit
Recommended supply voltage	V_{CC}	± 52	V
Load resistance	R_L	8	Ω

Operating Characteristics/ $T_a = 25^\circ\text{C}$, $V_{CC} = \pm 52\text{V}$, $R_L = 8\Omega$, $R_g = 600\Omega$, $V_G = 36.7\text{dB}$, at specified test circuit (based on Sample Application Circuit)

Parameter	Symbol	Conditions	min	typ	max	unit
Quiescent current	I_{CCQ}	$V_{CC} = \pm 60\text{V}$	20	40	70	mA
Output power	P_O	THD = 0.01%, $f = 20\text{Hz} \sim 20\text{kHz}$	100			W
Total harmonic distortion	THD(1)	$P_O = 100\text{W}$, $f = 20\text{Hz} \sim 20\text{kHz}$		0.005	0.01	%
	THD(2)	$P_O = 1\text{W}$, $f = 20\text{Hz} \sim 20\text{kHz}$			0.01	%
Power bandwidth	PBW	$P_O = 50\text{W}$, $f = 50\text{kHz}$		0.05		%

Equivalent Circuit



Specified Transformer Power Supply (Equivalent to Tango MG-200)

Case Outline 4007 (unit: mm)

