D.P.P.

thick film hyb[redacted]

OUTPUT STAGE OF AF POWER AMP.

Features

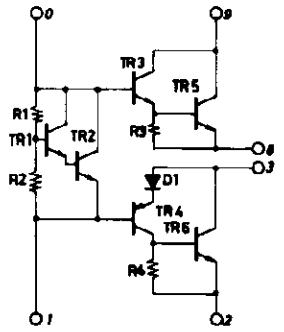
General output stage of power amplifier has a difficult and complex problem about heat sink designing and its setting. Sanyo's D.P.P. intends to decrease electronic parts and rationalize a manufacturing process by designing IC of only output stage of power amplifier.

- 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.

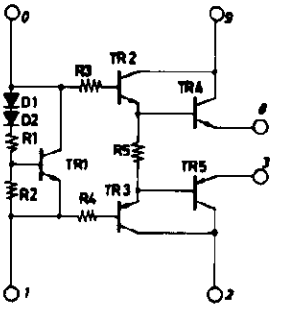
Type Number		Maximum Ratings at Ta=25°C								Operation Characteristics at Ta=25°C			
		Case Outline	Maximum Supply Voltage VCCmax.	Junction Temperature Tj	Storage Temperature, Tstg	Thermal Resistance, θ	Collector Current, ICmax.	Allowable Load Shorting Time, ts	Supply Voltage at Rated Power, Output RL=8Ω	Output Power, Po f=20 to 20kHz	Total Harmonic Distortion, THD f=20 to 20kHz	Quiescent Current, Icco	Equivalent Circuit
Pure-Complementary Circuit	Quasi-Complementary Circuit		V	°C	°C	°C/W	A	sec	V	W	%	mA	
1-Channel Darlington Power Pack (Without emitter resistance)													
	STK 0025	4002	±35	150	-30 to +105	2.6	3	2	±24.4	23 min.	0.05 max.	40 typ, 80 max.	
	STK 0029	4002	±37	150	-30 to +105	2.4	5	2	±25.0	25 min.	0.1 max.	40 typ, 80 max.	
STK 0030		4002	±40	150	-30 to +105	2.4	4	2	±28.5	30 min.	0.1 max.	40 typ, 80 max.	
	STK 0039	4004	±45	150	-30 to +105	2.0	5	2	±31	35 min.	0.1 max.	40 typ, 80 max.	
STK 0040		4002	±48	150	-30 to +105	2.0	5	2	±33	40 min.	0.1 max.	40 typ, 80 max.	
	STK 0049	4004	±50	150	-30 to +105	1.8	5	2	±35	45 min.	0.1 max.	40 typ, 80 max.	
STK 0050		4004	±53	150	-30 to +105	1.8	5	2	±36	50 min.	0.1 max.	40 typ, 80 max.	
	STK 0059	4004	±52.5	150	-30 to +105	1.6	7	—	±38	55 min.	0.1 max.	40 typ, 80 max.	
STK 0060		4006	±55	150	-30 to +105	1.4	7	—	±40	60 min.	0.1 max.	40 typ, 80 max.	
STK 0070		4006	±55	150	-30 to +105	1.4	7	—	±43	70 min.	0.1 max.	40 typ, 80 max.	
STK 0080		4006	±65	150	-30 to +105	1.3	10	—	±46	80 min.	0.1 max.	40 typ, 80 max.	
	STK 0105	4007	±75	150	-30 to +105	1.0	10	—	±50	100 min.	0.1 max.	40 typ, 80 max.	
STK 0040II		4002	±48	150	-30 to +105	1.8	5	1	±36	40 min.	0.01 max.	40 typ, 70 max.	
STK 0050II		4004	±53	150	-30 to +105	1.6	6	1	±39	50 min.	0.01 max.	40 typ, 70 max.	
STK 0060II		4006	±55	150	-30 to +105	1.3	8	1	±41	60 min.	0.01 max.	40 typ, 70 max.	
STK 0070II		4006	±60	150	-30 to +105	1.3	10	1	±45	70 min.	0.01 max.	40 typ, 70 max.	
STK 0080II		4006	±65	150	-30 to +105	1.2	12	1	±47	80 min.	0.01 max.	40 typ, 70 max.	
1-Channel Darlington Power Pack (With emitter resistance)													
STK 1030		4004	±40	150	-30 to +105	2.4	5	2	±28.5	30 min.	0.02 max.	40 typ, 80 max.	
	STK 1035	4004	±40	150	-30 to +105	2.4	5	2	±28.5	30 min.	0.02 max.	40 typ, 80 max.	
	STK 1039	4004	±46.1	150	-30 to +105	1.85	6	2	±30	35 min.	0.02 max.	40 typ, 80 max.	
STK 1040		4004	±48	150	-30 to +105	1.8	7	2	±33	40 min.	0.02 max.	40 typ, 80 max.	
	STK 1045	4004	±48	150	-30 to +105	1.8	7	2	±33	40 min.	0.02 max.	40 typ, 80 max.	
	STK 1049	4004	±50	150	-30 to +105	1.8	7	2	±34	45 min.	0.02 max.	40 typ, 80 max.	
STK 1050		4004	±53	150	-30 to +105	1.8	7	2	±36	50 min.	0.02 max.	40 typ, 80 max.	
	STK 1059	4004	±53	150	-30 to +105	1.6	7	—	±38	55 min.	0.02 max.	40 typ, 80 max.	
STK 1060		4004	±56	150	-30 to +105	1.6	10	—	±40	60 min.	0.02 max.	40 typ, 80 max.	
STK 1050II		4020	±55	150	-30 to +105	1.6	6	1	±38	50 min.	0.01 max.	40 typ, 70 max.	
STK 1060II		4020	±56	150	-30 to +105	1.3	8	1	±40	60 min.	0.01 max.	40 typ, 70 max.	
STK 1070II		4020	±63	150	-30 to +105	1.3	10	1	±43	70 min.	0.01 max.	40 typ, 70 max.	
STK 1080II		4020	±65	150	-30 to +105	1.2	10	1	±45	80 min.	0.01 max.	40 typ, 70 max.	
2-Channel Darlington Power Pack (Without emitter resistance)													
	STK 2025	4015	±40	150	-30 to +105	2.6	3	2	±24	20x2 min.	0.02 max.	40 typ, 80 max.	
	STK 2029	4015	±43	150	-30 to +105	2.2	4	2	±25.5	25x2 min.	0.02 max.	40 typ, 80 max.	
2-Channel Darlington Power Pack (With emitter resistance)													
	STK 2135	4015	±48	150	-30 to +105	2.1	4	2	±28.5	30x2 min.	0.02 max.	40 typ, 80 max.	
	STK 2139	4015	±50	150	-30 to +105	1.85	5	2	±30	35x2 min.	0.02 max.	40 typ, 80 max.	
	STK 2145	4015	±54	150	-30 to +105	1.8	7	2	±32	40x2 min.	0.02 max.	40 typ, 80 max.	
STK 2230		4015	±48	150	-30 to +105	2.1	4	2	±30	30x2 min.	0.01 max.	35 typ, 80 max.	
STK 2240		4015	±54	150	-30 to +105	1.8	5	2	±33.5	40x2 min.	0.01 max.	35 typ, 80 max.	
STK 2250		4015	±59	150	-30 to +105	1.8	5	2	±37	50x2 min.	0.01 max.	35 typ, 80 max.	
1-Channel No Switching Darlington Power Pack													
STK 8250		4006	±56	150	-30 to +105	1.8	5	2	±38	50 min.	0.01 max.	80 max.	
STK 8260		4006	±59	150	-30 to +105	1.4	7	2	±42	60 min.	0.01 max.	80 max.	
STK 8270		4006	±60	150	-30 to +105	1.4	7	2	±44	70 min.	0.01 max.	80 max.	
STK 8280		4006	±65	150	-30 to +105	1.4	7	2	±47	80 min.	0.01 max.	80 max.	
STK 8250II		4020	±55	150	-30 to +105	1.6	6	1	±38	50 min.	0.005 max.	70 max.	
STK 8260II		4020	±56	150	-30 to +105	1.3	8	1	±40	60 min.	0.005 max.	40 typ, 70 max.	
STK 8270II		4020	±63	150	-30 to +105	1.3	10	1	±44	70 min.	0.005 max.	40 typ, 70 max.	
STK 8280II		4020	±65	150	-30 to +105	1.2	12	1	±45	80 min.	0.01 max.	70 max.	

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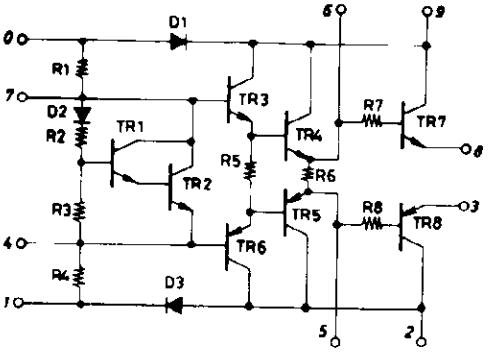
EQUIVALENT CIRCUIT



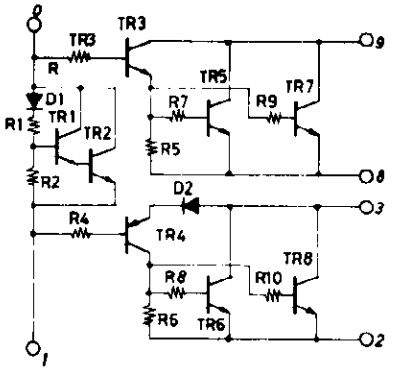
STK 0025, 0029, 0039, 0049, 0059



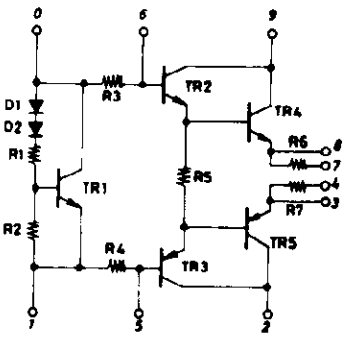
STK 0030, 0040, 0050, 0060, 0070
0080,



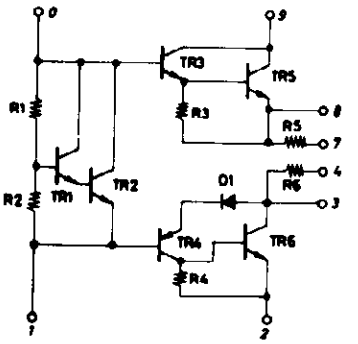
STK 0040II, 0050II, 0060II, 0070II, 0080II



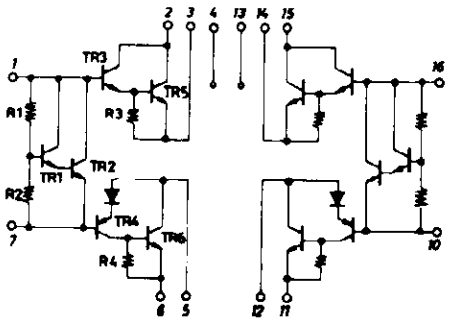
STK 0105



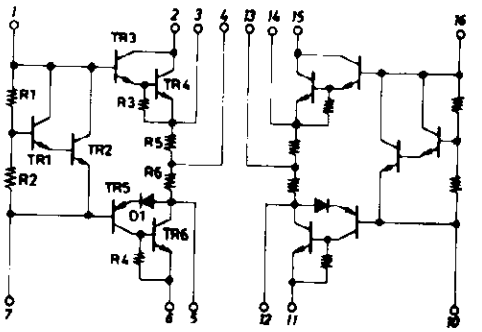
STK 1030, 1040, 1050, 1060



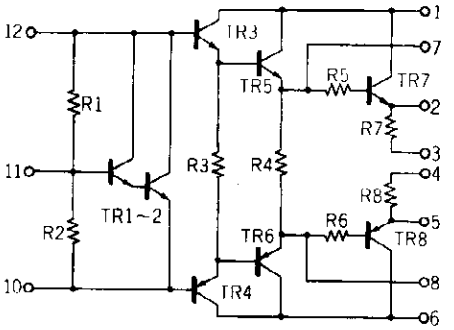
STK 1035, 1039, 1045, 1049, 1059



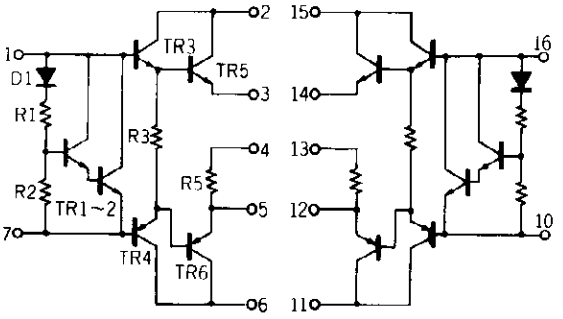
STK 2025, 2029



STK 2135, 2139, 2145



STK 1050II, 1060II, 1070II, 1080II



STK 2230, 2240, 2250