

LA4597

2-Channel Power Amp for Radio-Cassette Recorders

Functions

- On-chip thermal shutdown circuit
- On-chip standby switch

Maximum Ratings at Ta = 25°C

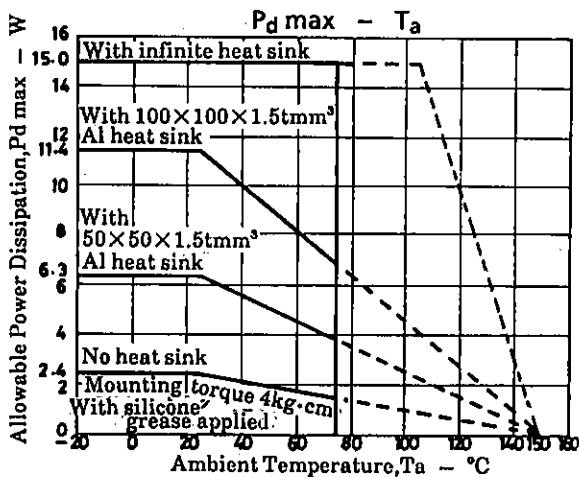
Parameter	Symbol	Value	unit
Maximum Supply Voltage	V _{CC} max	18	V
Allowable Power Dissipation	P _d max	With 100×100×1.5mm ³ Al heat sink	11.4 W
Operating Temperature	T _{opr}	-20 to +75	°C
Storage Temperature	T _{stg}	-40 to +150	°C

Operating Conditions at Ta = 25°C

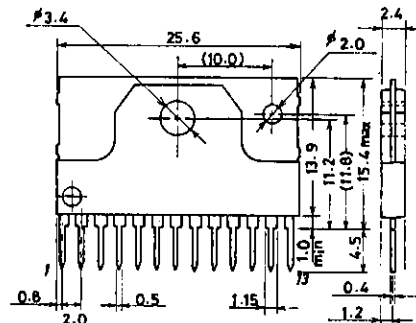
Parameter	Symbol	Value	unit
Recommended Supply Voltage	V _{CC}	9, 12	V
Recommended Load Resistance	R _L	3.2	Ω
Operating Voltage Range	V _{CC} op	4.2 to 16.0	V

Operating Characteristics at Ta = 25°C, V_{CC} = 9V, f = 1kHz, R_g = 600Ω, R_L = 3.2Ω, V_G = 50dB

Parameter	Symbol	Condition	min	typ	max	unit
Quiescent Current	I _{cco}		10	20	40	mA
Voltage Gain	V _G		47	49	51	dB
Output Power (1)	P _{o1}	THD = 10%	2.2	2.9		W
Output Power (2)	P _{o2}	THD = 10%, V _{CC} = 12V		4.6		W
Total Harmonic Distortion	THD	V _o = 2V		0.3	1.0	%
Input Resistance	r _i		20	30		kΩ
Output Noise Voltage	V _{NO1}	R _g = 0, B.P.F. = 20Hz to 20kHz		0.4	1.0	mV
	V _{NO2}	R _g = 10kΩ, B.P.F. = 20Hz to 20kHz		0.6	2.0	mV
Ripple Rejection	R _r	R _g = 0, f _r = 100Hz, V _{CCr} = 150mV	40	50		dB
Channel Separation	CH Sep	R _g = 10kΩ, V _o = 0dB	45	55		dB
Standby Current	I _{sd}				10	μA

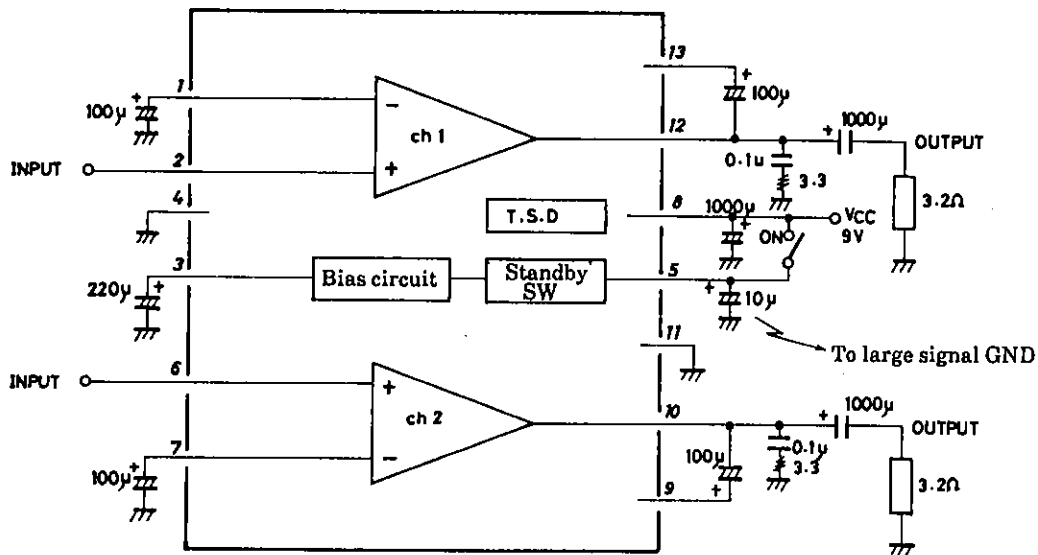


Package Dimensions (unit: mm) 3107

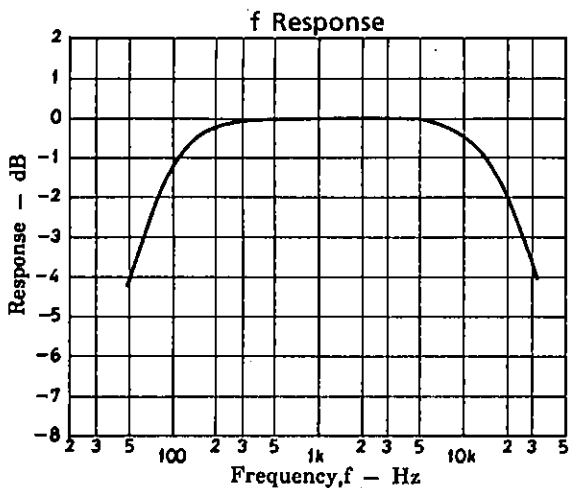
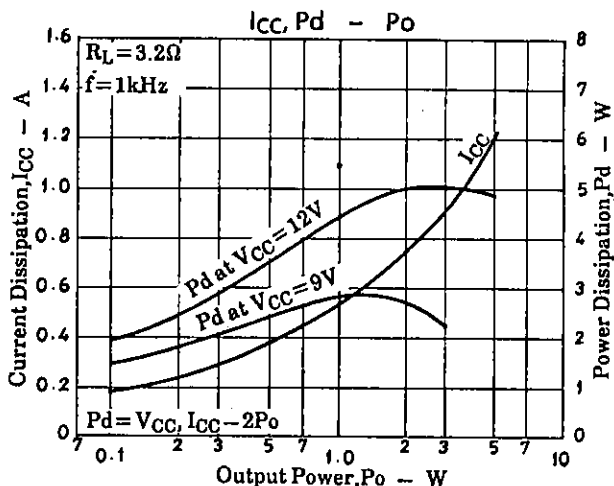
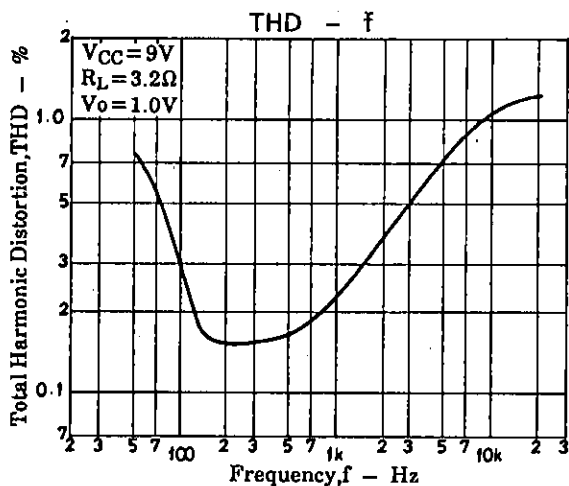


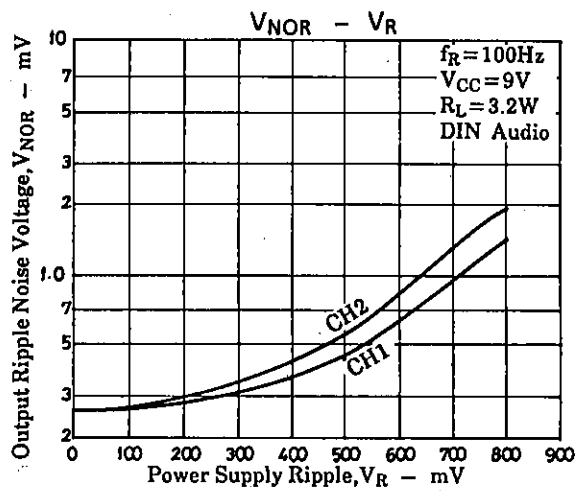
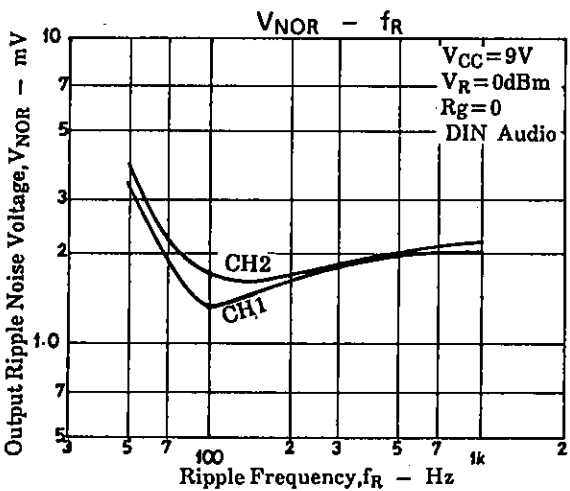
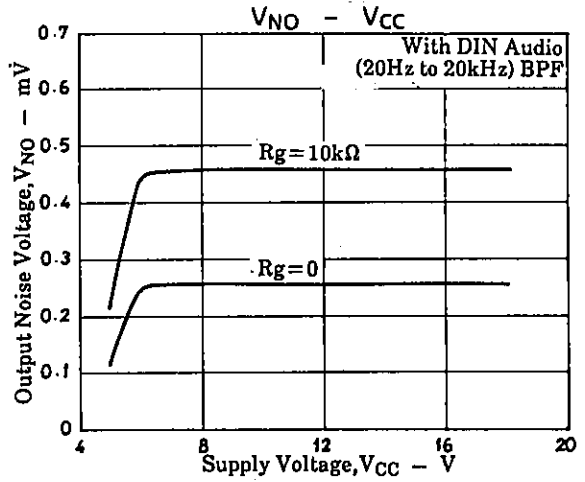
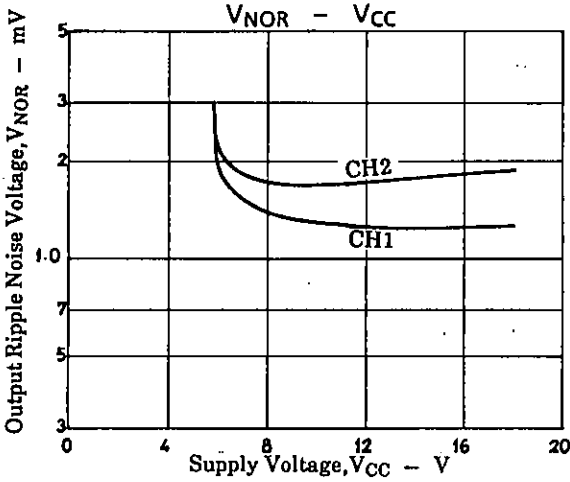
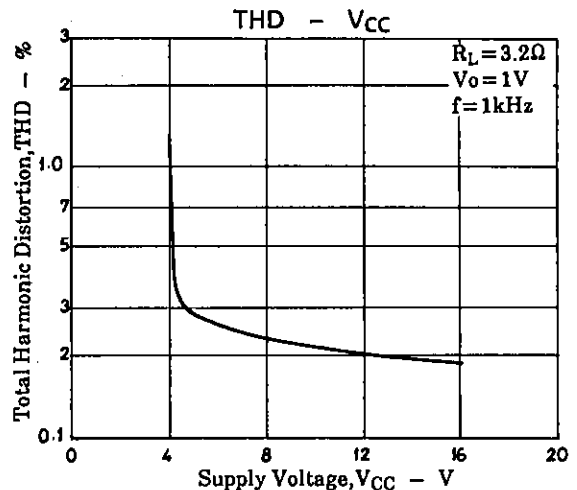
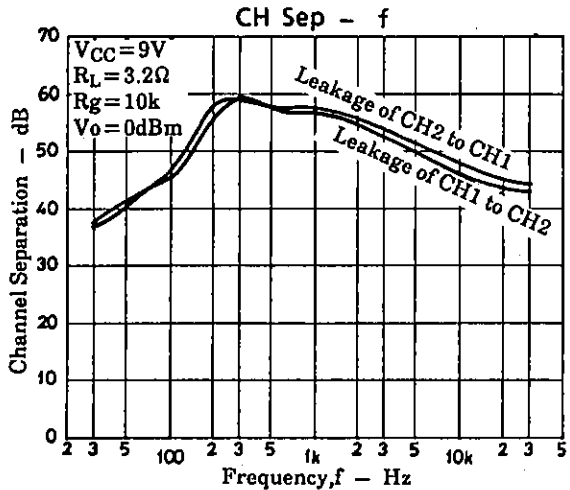
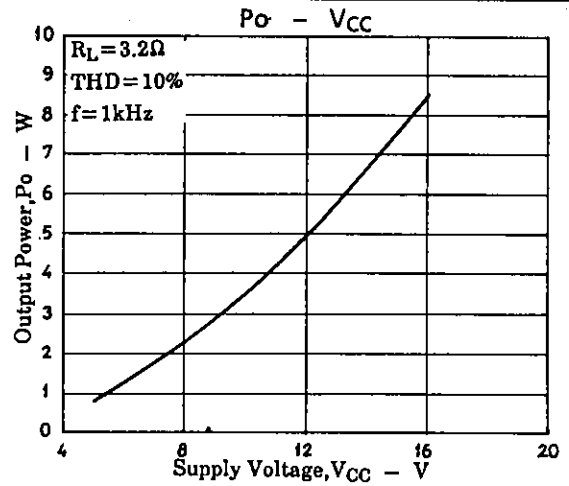
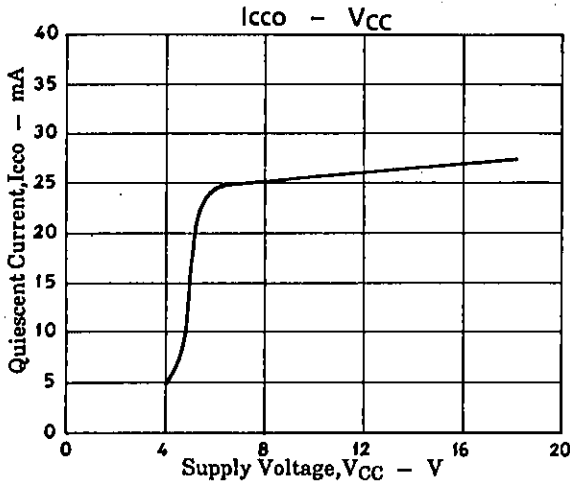
SANYO: SIP13H

Test Circuit and External Constants

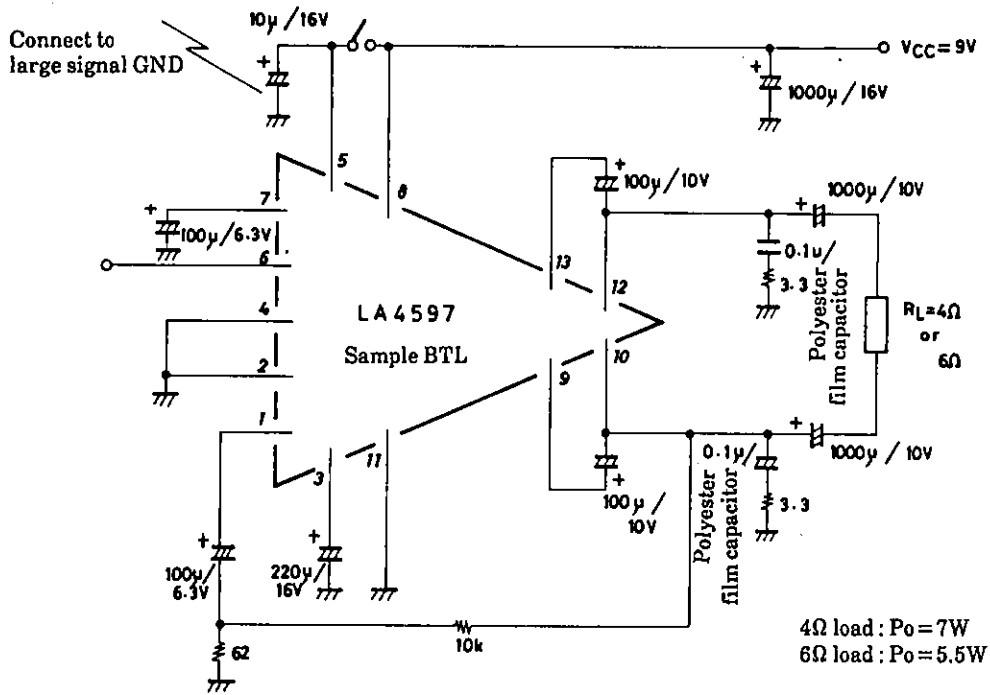


Unit (resistance: Ω, capacitance: F)





Sample BTL



Unit (capacitance: F)

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