



SANYO Semiconductors

DATA SHEET

LA4497/4498

Monolithic Linear IC

Car Stereo-Use

BTL-OCL 20W AF Power Amp

Features

- High output
- Excellent ripple rejection
- Low pop noise at the time of power ON/OFF
- Pin compatible with LA4495, 4496

Functions

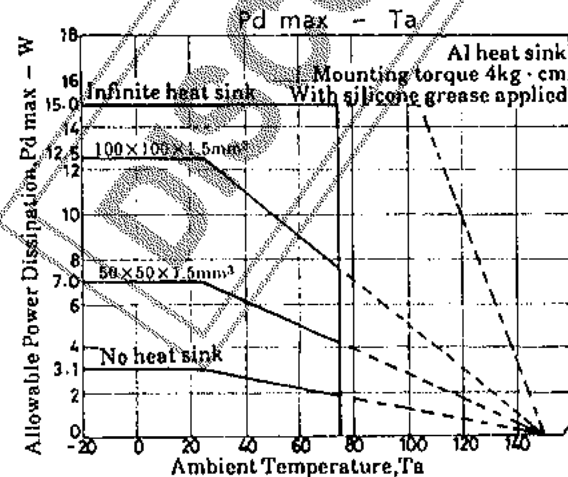
- On-chip standby circuit
- On-chip pop noise preventer (Starting time : 0.6 to 0.8sec.)
- Thermal shutdown circuit
- Overvoltage/surge protector
- On-chip output pin-to-GND short protector (with speaker protection)
- On-chip output pin-to-V_{CC} short protector (with speaker protection)
- On-chip load short protector

Maximum Ratings at Ta = 25°C

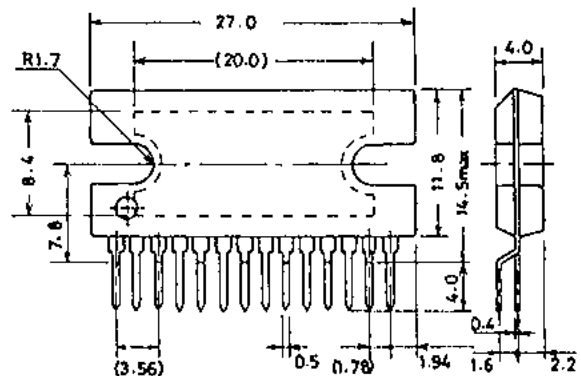
Parameter	Symbol	Condition	Value	unit
Maximum Supply Voltage	V _{CC max1}	Quiescent, t = 30sec	26	V
	V _{CC max2}	Quiescent	18	V
	V _{CC max3}	Operating	16	V
Surge Supply Voltage	V _{CC surge}	t ≤ 0.2sec, single giant pulse	50	V
		rise time t _r sec		
Output Current	I _o		4	A
Thermal Resistance	θ _{j-c}		3	°C/W
Junction Temperature	T _j		150	°C
Allowable Power Dissipation	P _{d max}		15	W
Operating Temperature	T _{opg}		-20 to +75	°C
Storage Temperature	T _{sig}		-40 to +150	°C

Operating Conditions at Ta = 25°C

Parameter	Symbol	Value	unit
Recommended Supply Voltage	V _{CC}	13.2	V
Recommended Load Resistance	R _L	4	Ω



Case Outline 3113-S14HZ IC (unit: mm)



Specifications and information herein are subject to change without notice. SANYO: S1P14HZ

SANYO Electric Co., Ltd. Semiconductor Company

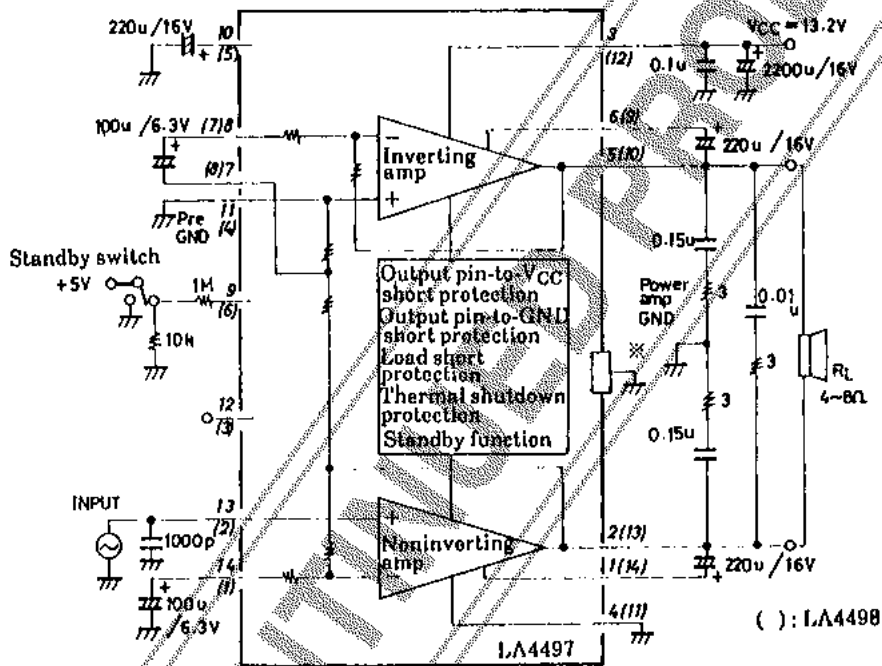
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LA4497,4498

Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 13.2\text{V}$, $R_L = 4\Omega$, $f = 1\text{kHz}$, $R_g = 600\Omega$,
with $100 \times 100 \times 1.5\text{mm}^3$ Al heat sink, standby switch ON

			min	typ	max	unit
Quiescent Current	I_{cc0}		40	80	160	mA
Output Power	$P_o(1)$	THD=10%	16	20		W
	$P_o(2)$	THD=1%		14		W
Output Offset Voltage	V_{off}	$R_g = \text{open}$	-300		+300	mV
Voltage Gain	VG		44	46	48	dB
Total Harmonic Distortion	THD	$P_o = 1\text{W}$		0.08		%
Input Resistance	r_i		20	30	40	k Ω
Output Noise Voltage	V_{NO1}	$R_g = 0, \text{B.P.F.} = 20\text{Hz to } 20\text{kHz}$		0.2	0.4	mVrms
	V_{NO2}	$R_g = 10\text{k}\Omega, \text{B.P.F.} = 20\text{Hz to } 20\text{kHz}$		0.4	0.8	mVrms
Ripple Rejection	R_r	$R_g = 0, V_R = 0\text{dBm}, f_R = 100\text{Hz}$	45	55		dB
Standby Current	I_{st}	Standby switch OFF		1.0	10	μA

Sample Application Circuit



Note: Connect the tab marked with * to large-signal GND.

The application circuit diagrams and circuit constants herein are included as an example and provide no guarantee for designing equipment to be mass produced.
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