

SANYO

No.2256C

LA4495, 4496

Monolithic Linear IC

Car Stereo-Use
BTL-OCL 20W AF Power Amp**Features**

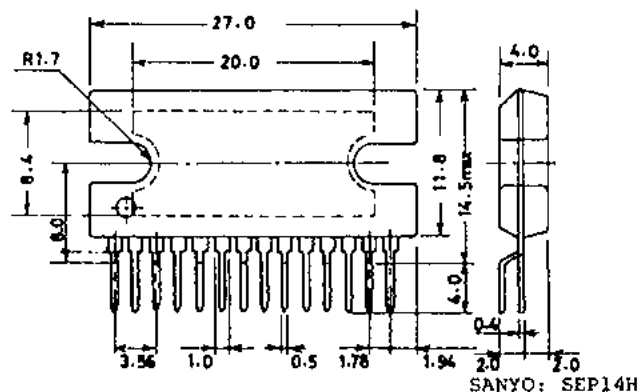
- High output
- Low distortion
- Excellent ripple rejection
- Low residual noise
- Low pop noise at the time of power ON/OFF
- Small-sized package SEP-14HS (Zigzag pins)
- Pin compatible with LA4475, 4476

Functions

- Standby circuit (Standby current : 1 μ A typ.)
- Pop noise preventer (Starting time : 0.6 to 0.8sec.)
- Thermal shutdown protector
- Overvoltage/surge protector
- Output pin-to-GND short protector (with speaker protection)
- Output pin-to-V_{CC} short protector (with speaker protection)
- Load short protector

Maximum Ratings at Ta = 25°C

			unit
Maximum Supply Voltage	V _{CC} max	Quiescent, t = 30sec	26 V
	V _{CC} max	Quiescent	18 V
	V _{CC} max	Operating	16 V
Surge Supply Voltage	V _{CC} surge	t ≤ 0.2sec, single giant pulse	50 V
		rise time 1msec	
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 _{stg}		-40 to +150 °C

Case Outline 3082-S14HC
(unit: mm)

Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

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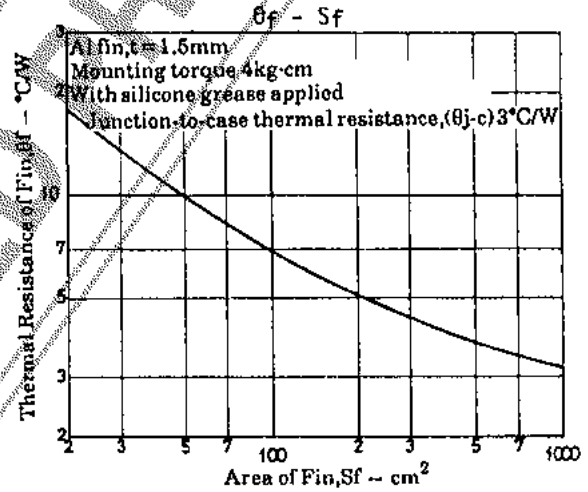
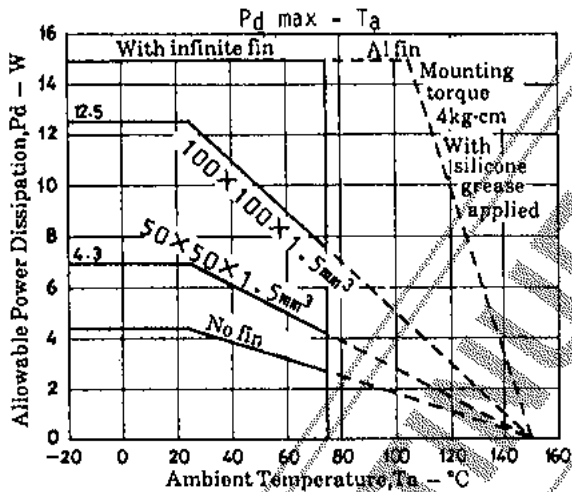
LA4495,4496

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

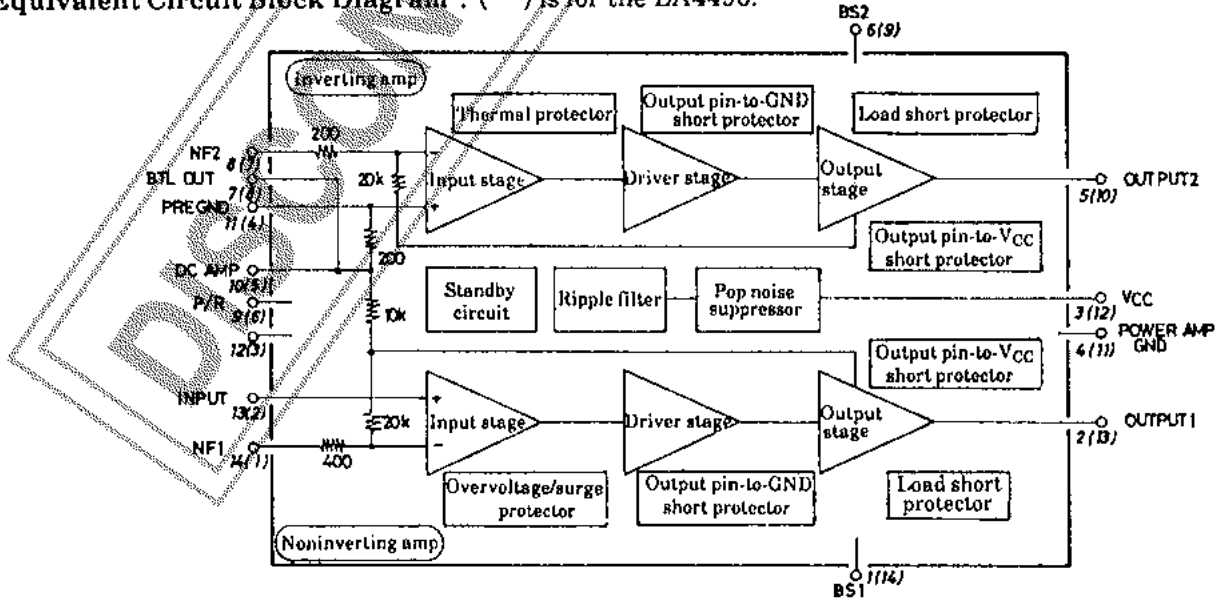
Recommended Supply Voltage	V_{CC}	13.2	V
Recommended Load Resistance	R_L	4	Ω
Operating Voltage Range	$V_{CC\text{ op}}$	9 to 16	V

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, See specified Test Circuit (standby switch ON).

			min	typ	max	unit
Quiescent Current	I_{CCO}		40	80	160	mA
Voltage Gain	VG		38	40	42	dB
Output Power	P_{O1}	THD = 10%	16	20		W
	P_{O2}	THD = 1%		15		W
Total Harmonic Distortion	THD	$P_o = 1\text{W}$		0.06	0.3	%
Input Resistance	r_i		20	30	40	$k\Omega$
Output Noise Voltage	V_{NO1}	$R_g = 0, \text{B.P.F.} = 20\text{Hz to } 20\text{kHz}$		90	180	μV
	V_{NO2}	$R_g = 10\text{k}\Omega, \text{B.P.F.} = 20\text{Hz to } 20\text{kHz}$		160	320	μV
Output Offset Voltage	V_{off}		-300		300	mV
Ripple Rejection	R_r	$R_g = 0, V_R = 0\text{dBm}, f_R = 100\text{Hz}$	45	55		dB
Standby Current	I_{st}			1.0	100	μA



Equivalent Circuit Block Diagram : () is for the LA4496.



LA4495 No.	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭
LA4496 No.	(4)	(3)	(2)	(1)	(0)	(9)	(8)	(7)	(6)	(5)	(4)	(3)	(2)	(1)
Pin Name	BS 1	OUT 1	VCC	PWR G	OUT 2	BS 2	BTL OUT	NF 2	P/R	DC A	PRE G	DC B	IN	NF 1
Pin Voltage (V)	10.6	6.9	13.2	0	6.9	10.6	0.14	1.25	5.0	12.3	0	1.00	0.014	1.25