

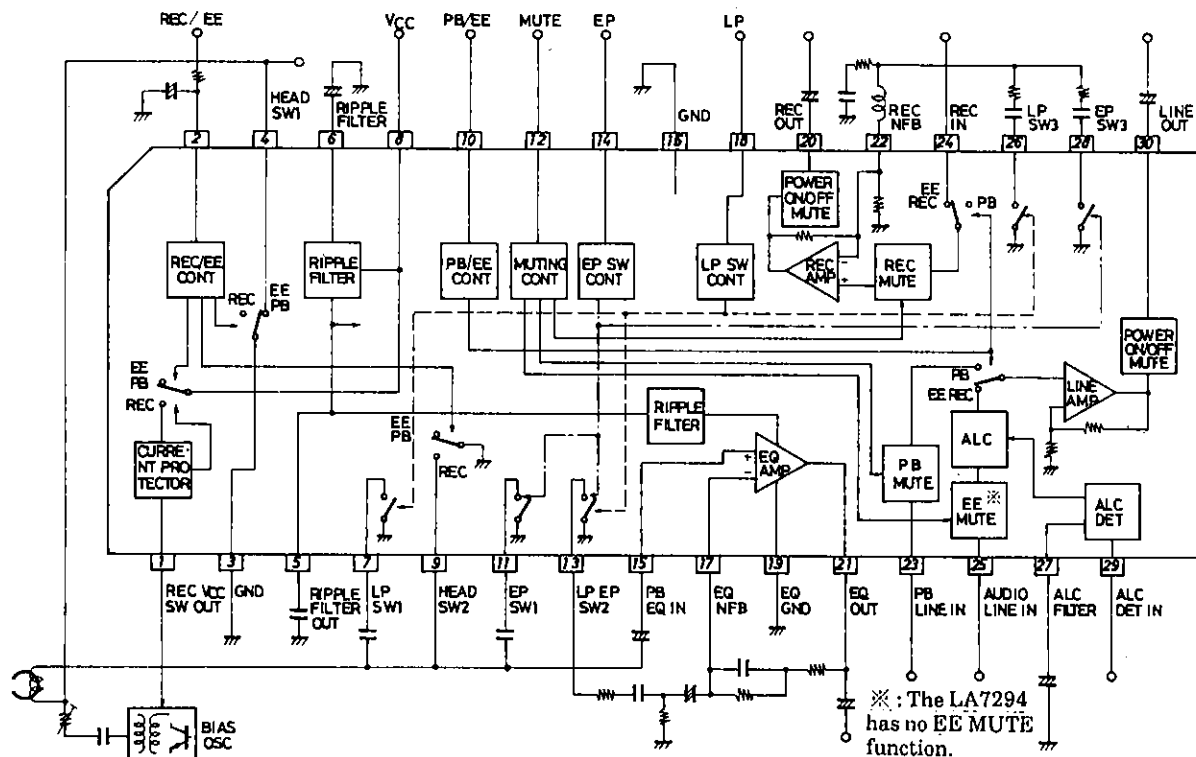
SANYO

No.2767A

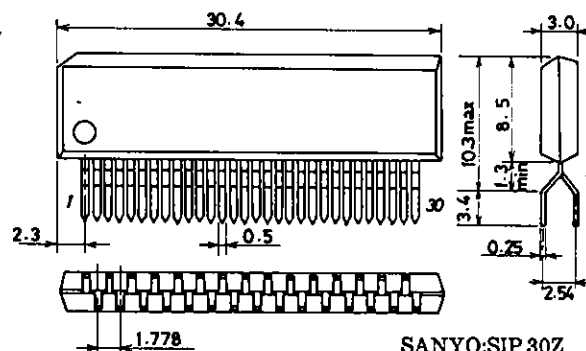
LA7295 Series**VTR Audio Signal Recording /
Playback Processor****Features**

- Single-chip ICs that provide various functions (including two tape head select switches, a power supply switch for the OSC bias circuit, and five equalizer select switches (LP, EP) required for VTR audio signal recording / playback)
- High merit in space because of SIP package
- Minimum number of external parts required

LA7295	... $V_{CC}=12V$, PB "Hi"
LA7294	... $V_{CC}=12V$, PB "Hi", no EE muting function
LA7296	... $V_{CC}=12V$, PB "Lo"
LA7297	... $V_{CC}=9V$, PB "Hi"

Block Diagram

Package Dimensions 3117
(unit:mm)



SANYO-SIP 30Z

SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

LA7294,7295,7296,7297

Maximum Ratings at Ta = 25°C		LA7294/95/96	LA7297	unit
Maximum Supply Voltage	V _{CC} max	14	11	V
Allowable Power Dissipation	P _d max Ta = 65°C	600	600	mW
Operating Temperature	Topr	-10 to +65	-10 to +65	°C
Storage Temperature	Tstg	-55 to +125	-55 to +125	°C
Operating Conditions at Ta = 25°C		LA7294/95/96	LA7297	unit
Recommended Supply Voltage	V _{CC}	12.0	9.0	V
Operating Voltage Range	V _{CC} op	11.25 to 12.75	8.25 to 9.75	V
Operating Characteristics at Ta = 25°C, V _{CC} = 12V(9V), f = 1kHz, 0dBv:1.0Vrms				
		min	typ	max unit
Current Dissipation (EE)	I _{CCE} Quiescent	11.0	15.0	20.0 mA
Current Dissipation (PB)	I _{CCP} Quiescent	12.0	16.0	21.0 mA
Current Dissipation (REC)	I _{CCR} Quiescent	9.0	13.0	18.0 mA
Overall Gain at PB Mode	V _{G_{PB}} EQ IN to LINE OUT, V _o = -5dBv	67.0	68.0	69.0 dB
[Equalizer Amp]				
Open-Loop Voltage Gain	V _{G_{OE}} V _o = -5dBv	67.0	72.0	dB
Equivalent Input Noise Voltage	V _{NIE} R _g = 2.2kΩ, DIN audio filter		1.0	1.8μVrms
Input Resistance	r _{ie}		130	kΩ
[Line Amp]				
Voltage Gain (PB Input)	V _{G_{LP}} V _o = -5dBv	32.0	33.0	34.0 dB
Voltage Gain (EE, REC Input)	V _{G_{LR}} V _o = -5dBv	32.0	33.0	34.0 dB
Total Harmonic Distortion	THD _L V _o = -5dBv		0.15	0.40 %
Output Noise Voltage	V _{NOL} DIN audio filter "		-70.0	-64.0 dBv
Input Resistance (PB Input)	r _{i1}		30.0	kΩ
Input Resistance (EE, REC Input)	r _{i2}		30.0	kΩ
Maximum Output Voltage	V _{OML} THD = 1%	1.5	2.2	Vrms
Output Voltage at ALC Mode	V _{OA} V _{IN} = -35dBv	-6.5	-5.0	-3.5 dBv
ALC Effect	ALC V _{IN} = -35 to -10dBv		1.0	3.0 dB
Total Harmonic Distortion at ALC Mode	THD _A V _{IN} = -35dBv		0.2	0.6 %
[Recording Amp]				
Voltage Gain (Open Loop)	V _{G_{OR}} V _o = -5dBv	51.0	57.0	dB
Voltage Gain (Closed Loop)	V _{G_{CR}} V _o = -5dBv	13.5	14.5	15.5 dB
Total Harmonic Distortion	THD _R V _o = -5dBv		0.1	0.3 %
Input Resistance	r _{ir}		30.0	kΩ
Maximum Output Voltage	V _{OMR} THD = 1%	1.5	2.2	Vrms
[Muting Circuit]				
ON-State Voltage	V _{MON} Pin 12 DC	3.3		V _{CC} V
OFF-State Voltage	V _{MOFF} Pin 12 DC	0		1.0 V
Muting Attenuation (PB, EE)	M _{P, M_E} LA7294 : No EE required	85.0	90.0	dB
Muting Attenuation (REC)	M _R	73.0	78.0	dB
[PB/EE Select Circuit]				
PB Mode Hold Voltage (LA7296 EE mode)	V _{PP} Pin 10 DC	3.3		6.0 V
EE Mode Hold Voltage (LA7296 PB mode)	V _{PE} Pin 10 DC	0		1.0 V
[REC/EE Select Circuit]				
REC Mode Hold Voltage	V _{RR} Pin 2 DC	3.8		6.0 V
EE Mode Hold Voltage	V _{RE} Pin 2 DC	0		1.0 V

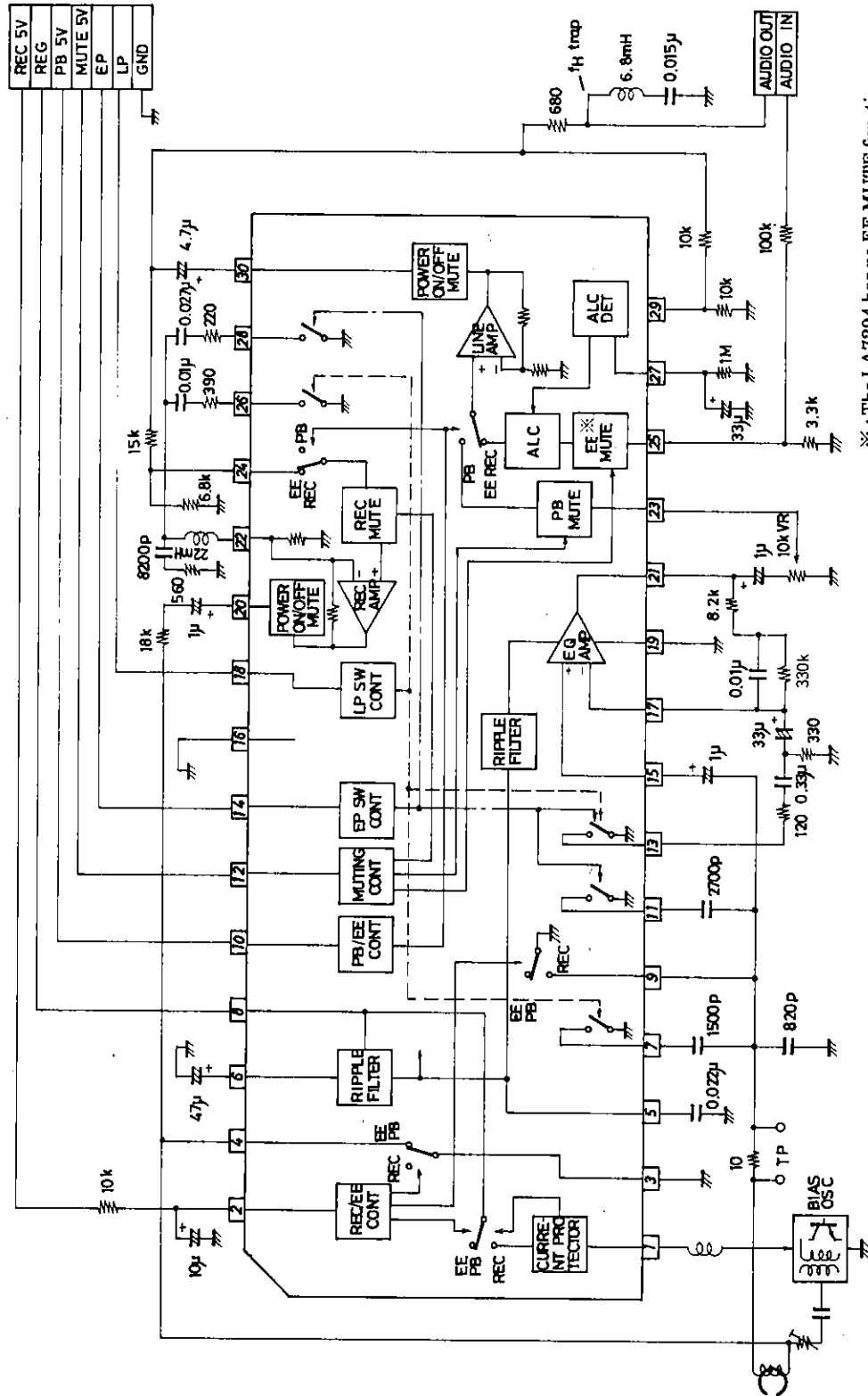
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LA7294,7295,7296,7297

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			min	typ	max	unit
[Equalizer Select Circuit]						
Switch ON-State Voltage	V_{EON}	Pins 14,18 DC	3.0		6.0	V
Switch OFF-State Voltage	V_{EOFF}	Pins 14,18 DC	0		0.8	V
[Head Select Switch]						
Pin 4 ON-State Resistance	R_{ON4}	$I_4 = \pm 1\text{mA}$		10	20	Ω
Pin 9 ON-State Resistance	R_{ON9}	$I_9 = \pm 1\text{mA}$		5	10	Ω
Pin 4 Input Voltage	V_{IN4}	$T_a = 65^\circ\text{C}, f = 80\text{kHz}(\sin)$ $I_{LK} = 10\mu\text{A}$			± 40	V
[REC V_{CC} Switch]						
Pin 1 Output Voltage (LA7294/95/96)	V_{RO}	Pin 1 load current 100mA	10.5	10.8		V
Pin 1 Output Voltage (LA7297)	V_{RO}	Pin 1 load current 100mA	7.5	7.8		V

Sample Application Circuit



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