

CAR AUDIO

EAVS 1 is a highly integrated hybrid IC including a built-in 7-elements electronic graphic equalizer (IC TC 9187) and an built-in electronic volume (IC LC 7537).

FEATURES

- Available for TC 9187 direct bonding.
- Built-in resonator circuit with the nominal central frequency of 63, 125, 250, 500, 1k, 3.5k, or 10kHz.
- Possible to control it by a general purpose micro computer, because the serial system can be controlled by a 5V system.
- Built-in Loudness function.

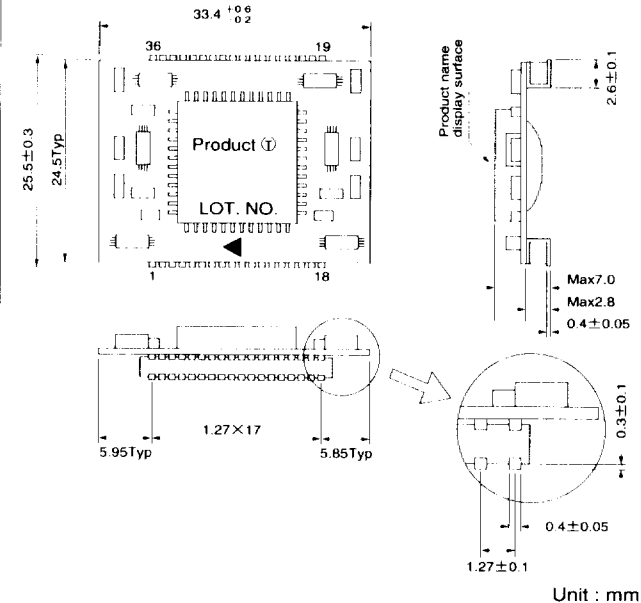
ABSOLUTE MAXIMUM RATINGS

(TA = 25 °C)

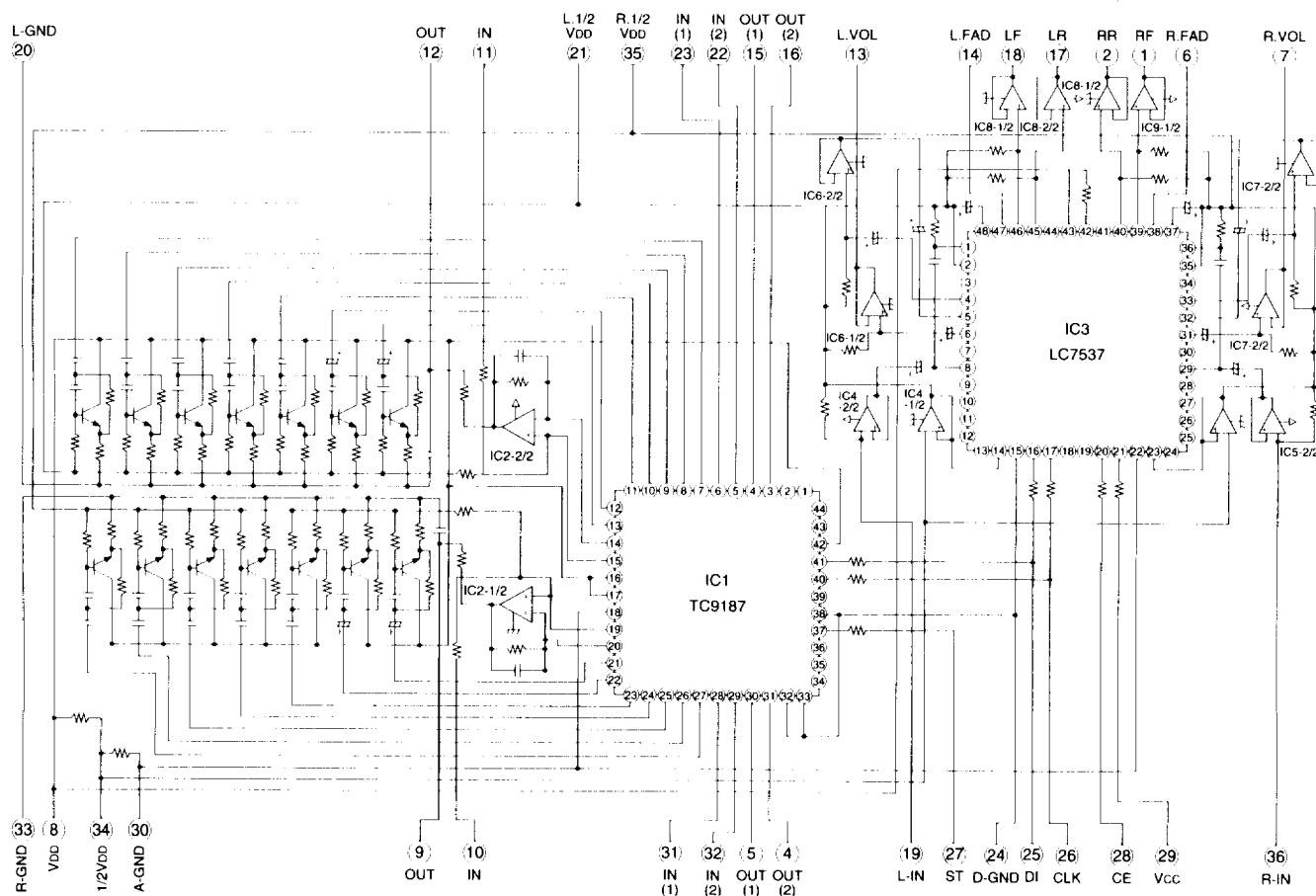
Item	Symbol	Rated value	Unit
Power supply voltage	Vcc	13	V
Allowable power dissipation	Pd	1	W
Operating temperature range	Topr.	-20 ~ +75	°C
Using temperature range	Tstg.	-40 ~ +85	°C

OUTLINE DIMENSIONS

External dimensions



INTERNAL CIRCUIT



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ELECTRICAL CHARACTERISTICS

Measurement condition.

If not otherwise specified: Volume, Tone, Fader; 0dB setting. $V_{in} = 200mV_{rms}$, $f = 1kHz$

$T_A = 25^\circ C$ $V_{CC} = 8V$

No.	Item	Symbol	Standard value			Unit	Measurement condition		
			Min	Typ	Max				
1	Current consumption	I _{CC}		50		mA	Electronic graphic equalizer part		
2	Electronic graphic equalizer part	Voltage gain	-1	0	+1	dB	Individually for each frequency		
3		Frequency response	-1	0	+1	dB			
4		Boost rate	10.5	12.0	13.5	dB			
		Cutting rate	-13.5	12.0	-10.5	dB			
5		Distortion factor		0.01		%		Using 30kHz L.P.F	
6	Noise Voltage	G-VNF		3		μV_{rms}	All flat R _g = 600 Ω		
		G-VNB		22		μV_{rms}	All boost Using DIN-AUDIO filter		
7	Output DC voltage	G-VDC	3.8	4.0	4.2	V			
8	Analogue SW attenuation rate	G-GVA	1	0	+1	dB	V _{in} : ②, ③, ③, ③ V _{OUT} : ④, ⑤, ⑤, ④		
9	Electronic volume part	Voltage gain	-1	0	+1	dB	f: 20 ~ 20kHz, Output standard at 1kHz		
10		Frequency response	1	0	+1	dB			
11		Loudness characteristics	B-LD1	+5.5	+8.0	+10.5		dB	f: 100Hz Volume: set to -20dB Loudness: ON
			B-LD2	+3.0	+5.5	+8.0		dB	f: 10kHz Output standard at 1kHz
12		Volume throttling rate	B-Vmin		-90			dB	Volume: set to $-\infty$ dB V _{in} = 1V _{rms}
13		Fader throttling rate	B-Fmin		-85			dB	Fadere: set to $-\infty$ dB V _{in} = 1V _{rms}
14		Cross-talk	B-C.T		-90			dB	
15		Distortion factor	B-THD		0.01			%	Using 30kHz L.P.F V _{in} = 1V _{rms}
16	Maximum output voltage	B-Vomax		1.7		V _{rms}	B-THD = 1%		
17	Noise voltage	B-Vn		4.5		μV_{rms}	R _g = 600 Ω Using DIN-AUDIO filter		

TEST CIRCUIT

