

LOW NOISE DUAL PREAMPLIFIER FOR AUTOREVERSE CAR STEREO

Technology: Bipolar

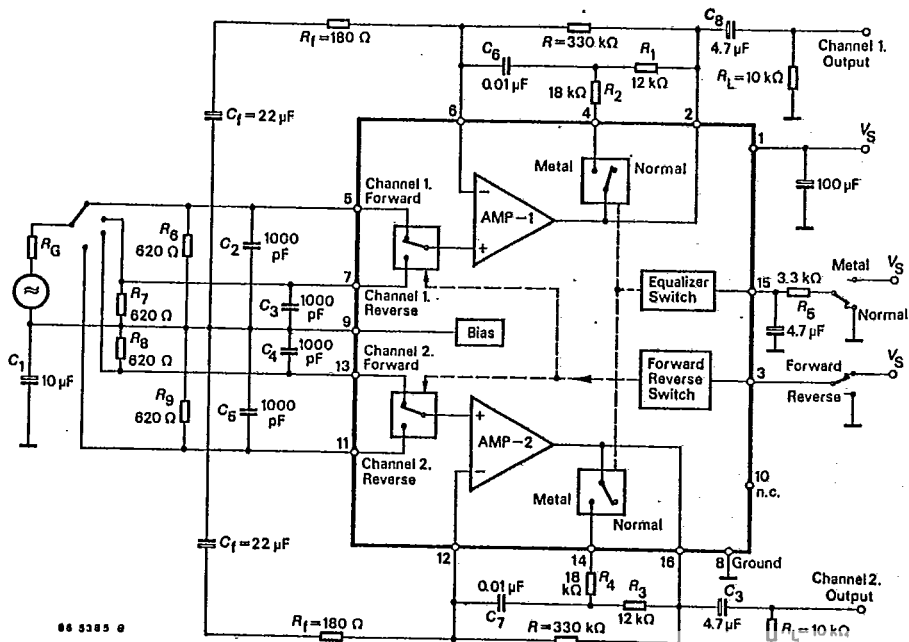
Features:

- Supply voltage range $V_S = 6 \dots 16 \text{ V}$
- High voltage gain
- Forward/reverse control switches
- Metal/normal tape equalizer control switches
- Low distortion
- Low noise

Case:

16 pin dual inline plastic (U 2705 B)

16 pin SO plastic (U 2705 B-FP)



Absolute maximum ratings

Reference point Pin 8				
Supply voltage Pin 1			16	V
Power dissipation $T_{amb} = 25\text{ °C}$	DIP 16		750	mW
	SO 16		350	mW
Junction temperature			+150	°C
Storage temperature range			-50...+150	°C
Ambient temperature range			-25...+ 85	°C

Maximum thermal resistance

Junction ambient	DIP 16	R_{thJA}	170	K/W
	SO 16	R_{thJA}	360	K/W

Electrical characteristics

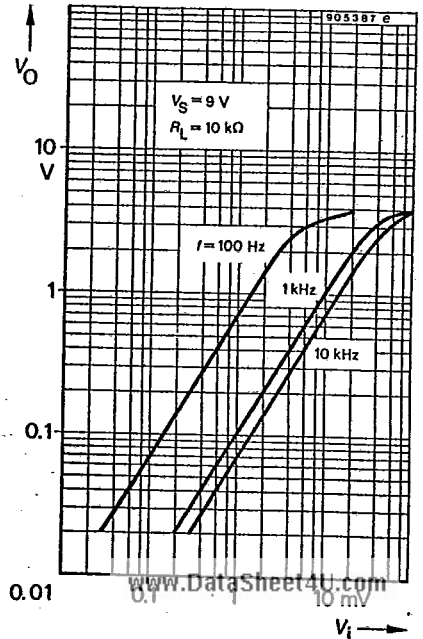
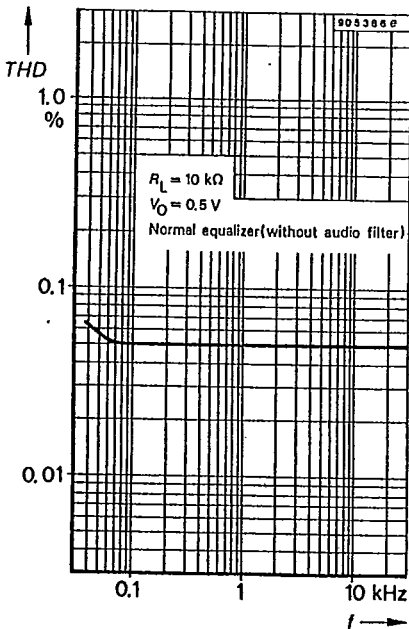
$V_S = 9\text{ V}$, reference point: Pin 8
 $f = 1\text{ kHz}$, $R_G = 600\ \Omega$

$T_{amb} = 25\text{ °C}$, normal EQ,
 in test circuit, unless
 otherwise specified

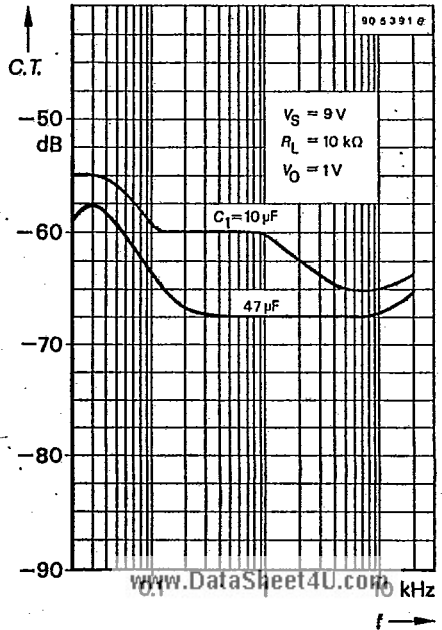
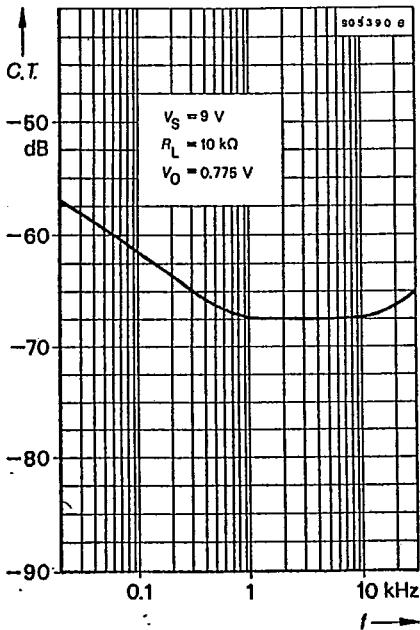
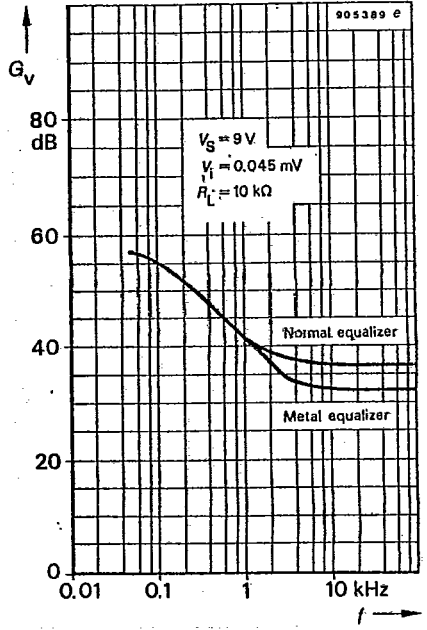
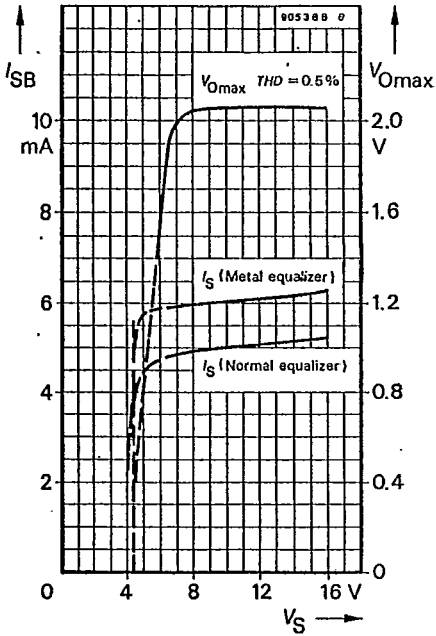
			Min.	Typ.	Max.	
Supply voltage range	Pin 1	V_S	6		16	V
Quiescent drain current	Pin 1	normal EQ		5		mA
		metal EQ	Pin 1		6	9
Maximum output voltage THD = 0.5 %		V_{omax}	1.5	2		V
Total harmonic distortion $V_o = 0.5\text{ V}$		THD		0.035	0.12	%
Equivalent input noise voltage	Pin 1	$R_G = 620\ \Omega$ $B = 22 \dots 22.000\text{ Hz}$	V_{ni}	1.0	1.7	μV
Input resistance Pin 5, 7, 11, 13		R_{in}		500		k Ω
Supply voltage rejection ratio $V_{hum} = 1\text{ V}$, $f_{hum} = 100\text{ Hz}$		SVR		55		dB
Cross Talk $V_o = 0\text{ dBmO}$		CT	50	60		dB
Forward/reverse cross talk $V_o = 0\text{ dBmO}$		CT (F/R)	60	70		dB
Voltage gain open loop $f = 30\text{ Hz}$		G_{vo}		100		dB

$V_S = 9\text{ V}$, $T_{amb} = 25\text{ }^\circ\text{C}$, dual mode test circuit

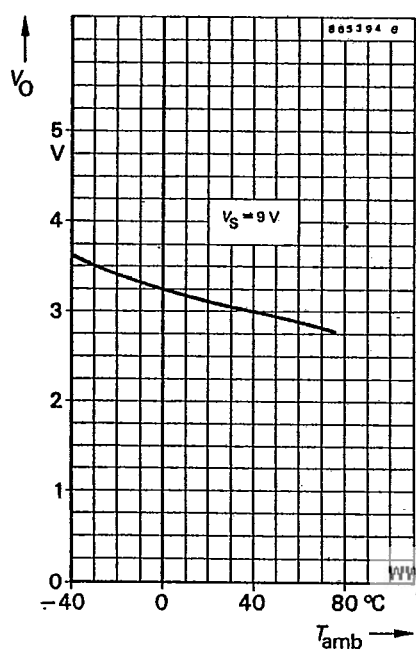
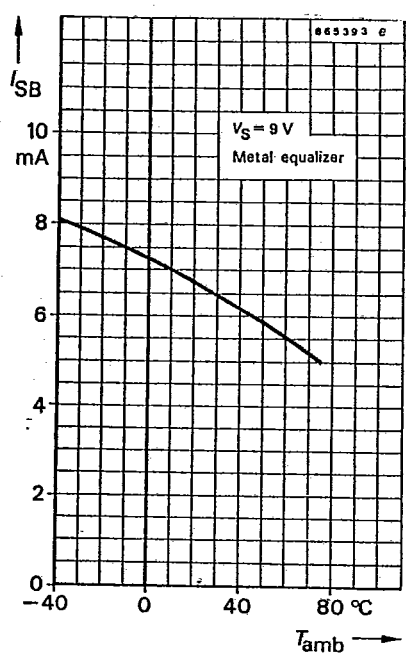
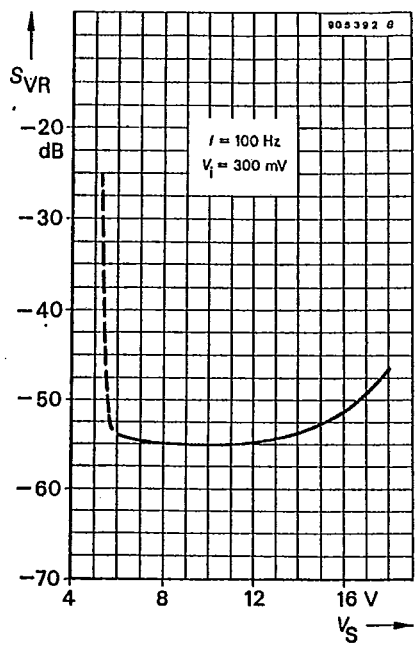
Electrical connections	Pin	Typical DC voltages in V
Supply voltage, + V_S	1	9
Output 1, normal	2	3.0
Switching input, forward/revers	3	0.7
Output feedback 1, metal	4	2.9
Not inverted input 1, forward	5	2.9
Inverted input 1	6	2.9
Not inverted input 1, reverse	7	2.9
Ground	8	0
Reference voltage	9	2.9
NC	10	NC.
Not inverted input 2, reverse	11	2.9
Inverted input 2	12	2.9
Not inverted input 2, forward	13	2.9
Output feedback 2, metal	14	2.9
Switching input, normal/metal	15	3.5
Output 2, normal	16	2.9

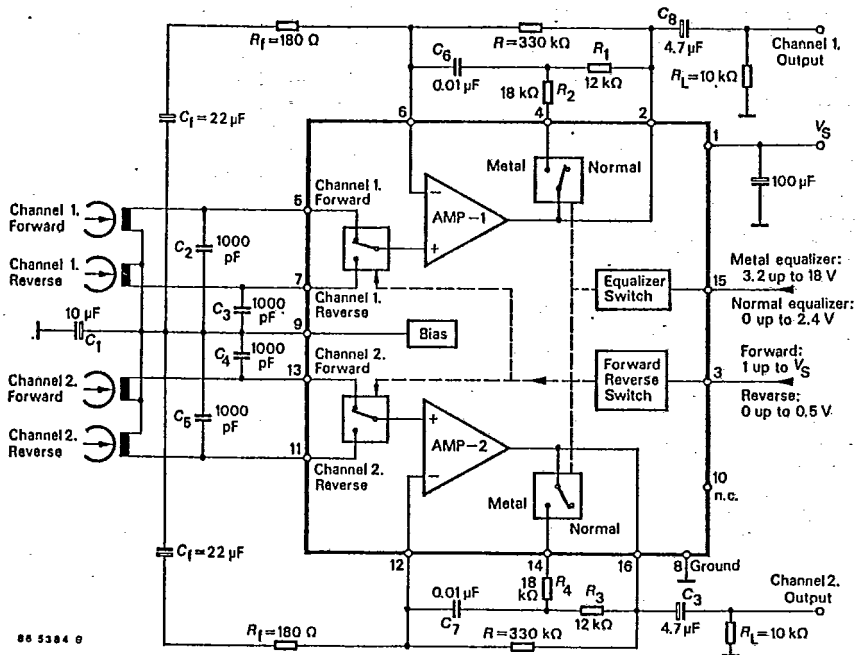


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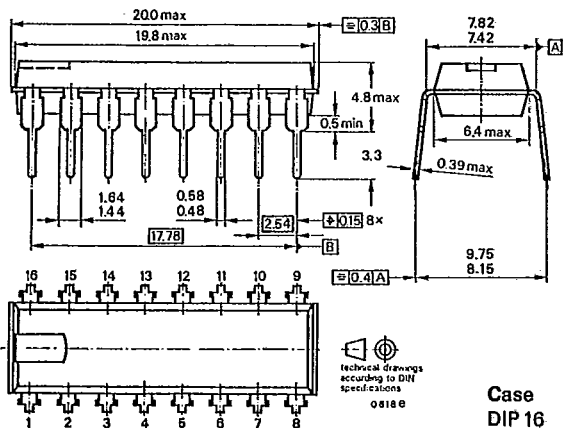




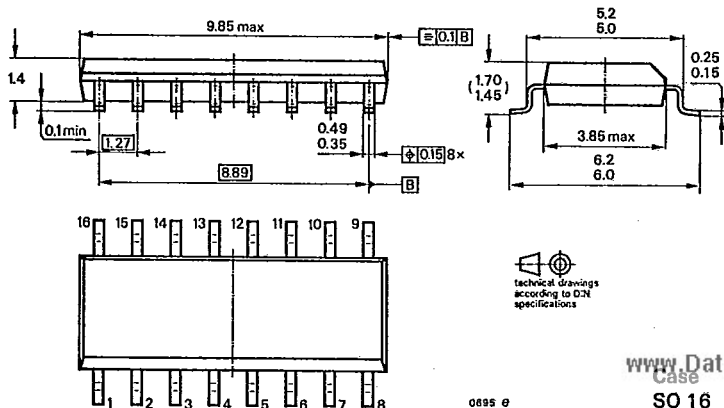
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Dimensions in mm

T-77-21



Case
DIP 16



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Case
SO 16