

T-74-0501

**Monolithic Integrated Circuit**

**Application:** Dual Low voltage Power Amplifier, especially for portable radios and cassette players

**Features:**

- Supply voltage range 1.8 V to 10 V
- Low crossover distortion
- Very low radiation due to low cut-off frequency
- Low quiescent current
- Stereo configuration
- Audio output power 2x0.7 W

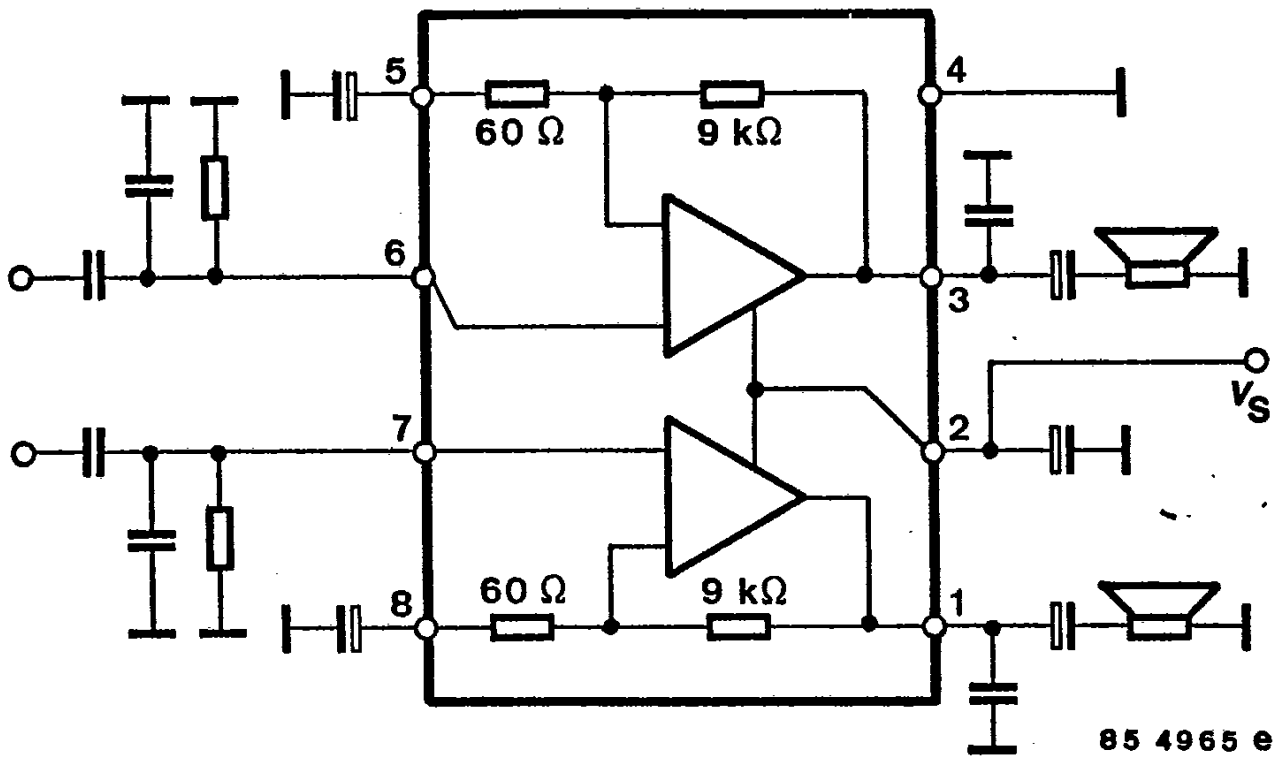


Fig.1 Block diagram and pin connections

**Absolute maximum ratings**

Reference point Pin 4, unless otherwise specified

Supply voltage	$V_S$	10	V
Power dissipation $T_{amb} = 50^\circ\text{C}$	$P_{tot}$	1	W
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-25...+150	$^\circ\text{C}$

**Thermal resistance**

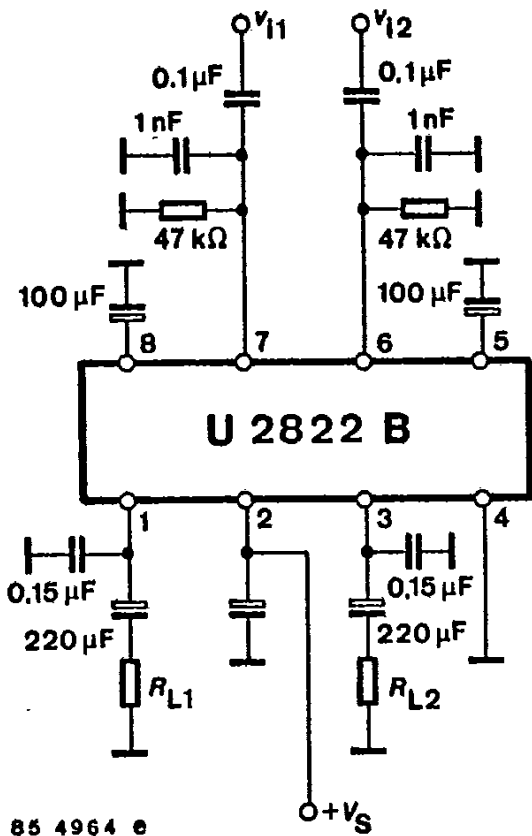
Junction ambient	$R_{thJA}$	Min.	Typ.	Max.	K/W
				100	

**Electrical characteristics**

$V_S = 4.5\text{ V}$ ,  $T_{amb} = 25^\circ\text{C}$ , reference point Pin 4, unless otherwise specified

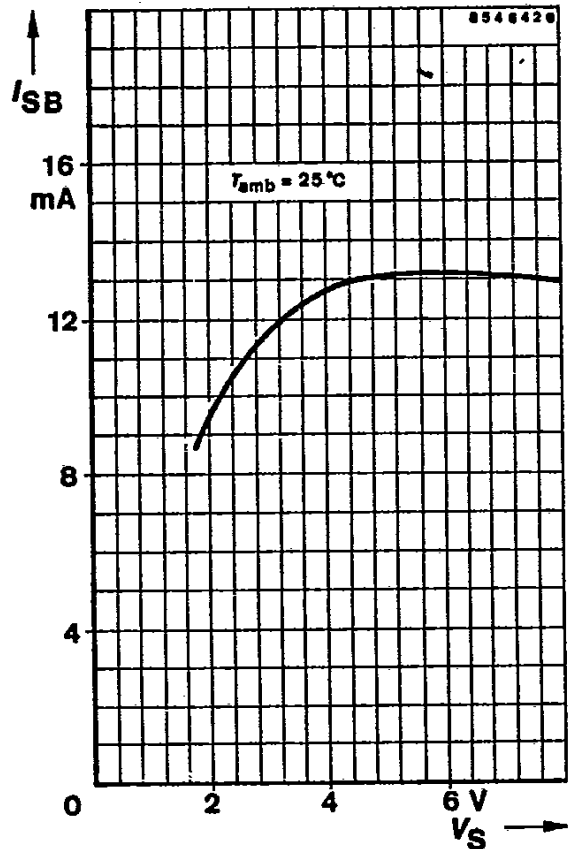
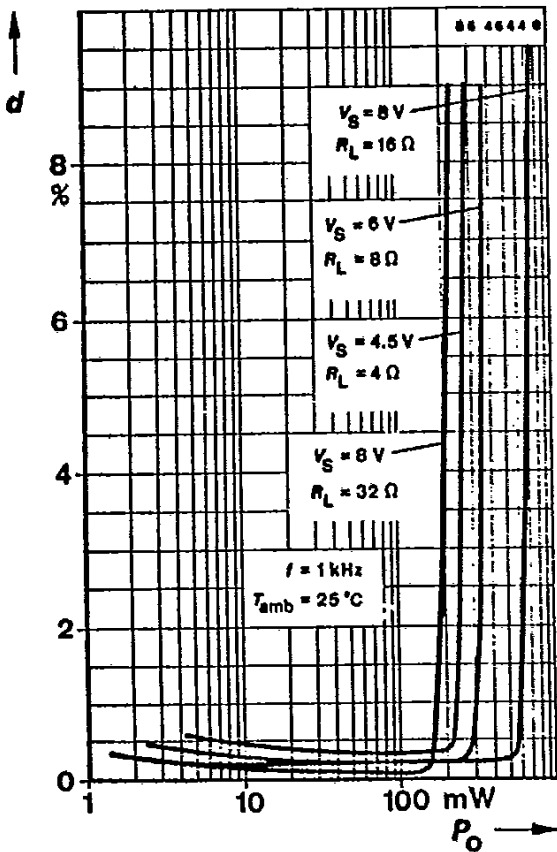
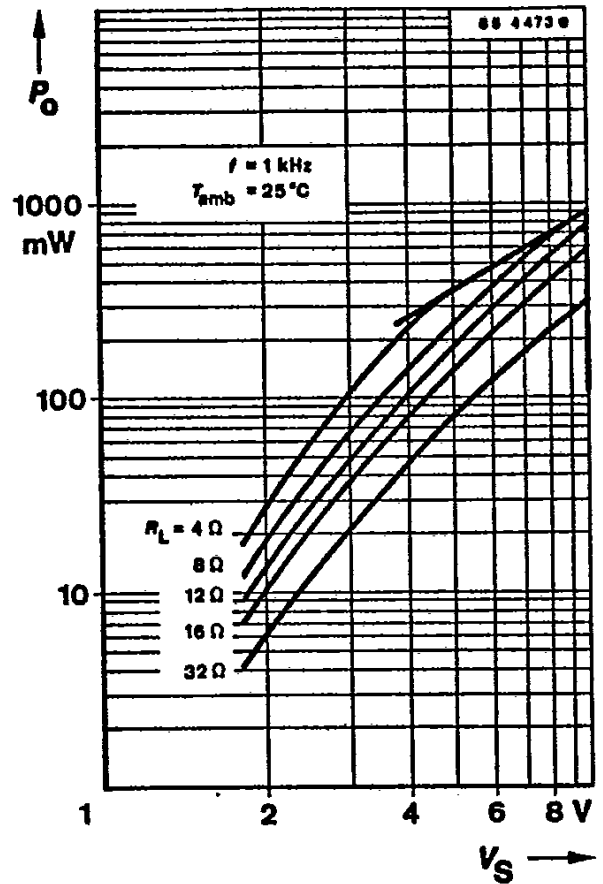
Supply voltage range	Pin 2	$V_S$	1.8	10	V	
Quiescent drain current $R_L = \infty$	Pin 2	$I_S$	5	12	16	mA
Output power $d = 10\%$ , $f = 1\text{ kHz}$						
$V_S = 2.0\text{ V}$ , $R_L = 4\ \Omega$	Pin 1, 3	$P_o$		25		mW
$V_S = 3.0\text{ V}$ , $R_L = 8\ \Omega$	Pin 1, 3	$P_o$		65		mW
$V_S = 4.5\text{ V}$ , $R_L = 8\ \Omega$	Pin 1, 3	$P_o$		200		mW
$V_S = 9.0\text{ V}$ , $R_L = 12\ \Omega$	Pin 1, 3	$P_o$		650		mW
$V_S = 6.0\text{ V}$ , $R_L = 16\ \Omega$	Pin 1, 3	$P_o$		220		mW
$V_S = 3.0\text{ V}$ , $R_L = 32\ \Omega$	Pin 1, 3	$P_o$		20		mW
$V_S = 4.5\text{ V}$ , $R_L = 32\ \Omega$	Pin 1, 3	$P_o$		60		mW
Distortion $P_o = 50\text{ mW}$ , $R_L = 8\ \Omega$	Pin 1, 3	d		0.5		%
Closed loop voltage gain $f = 1\text{ kHz}$	Pin 1, 3	$G_{vf}$	40	43		dB
Power bandwidth (-3 dB)	Pin 1, 3	B		30		kHz
Input resistance	Pin 6, 7	$R_i$	800			k $\Omega$
Input noise voltage $R_S = 0$ , B = 22 Hz...22 kHz	Pin 6, 7	$V_{ni}$		2.5		$\mu\text{V}$
Supply voltage rejection ratio $V_{hum} = 0.2\text{ V}$ , $f_{hum} = 100\text{ Hz}$	Pin 1, 3	SVR		15		dB
Channel separation $f = 1\text{ kHz}$ , $P_o = 0.25\text{ W}$	Channel 1 $\leftrightarrow$ Channel 2	Pin 1 $\leftrightarrow$ 3		46		dB

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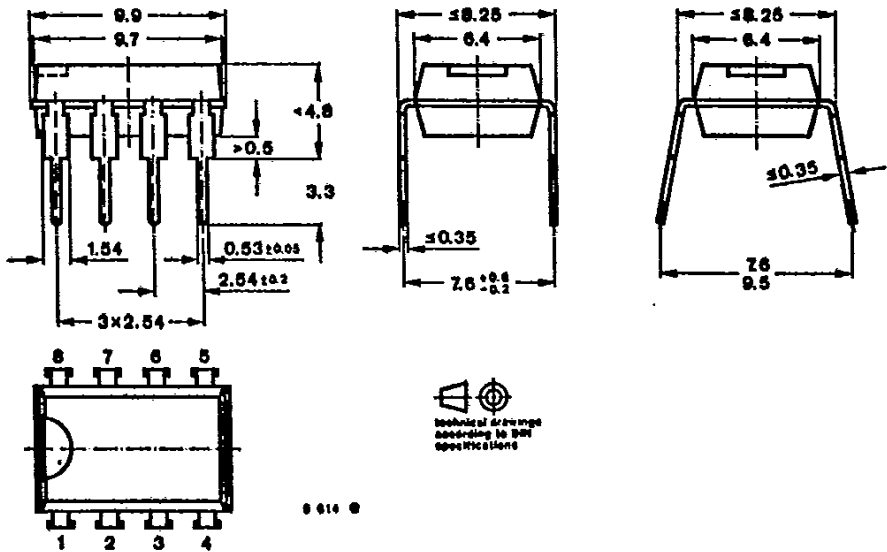
Fig. 2 Test circuit



U 2822 B

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Dimensions in mm



Case  
DIP 8  
Weight max. 0.8 g