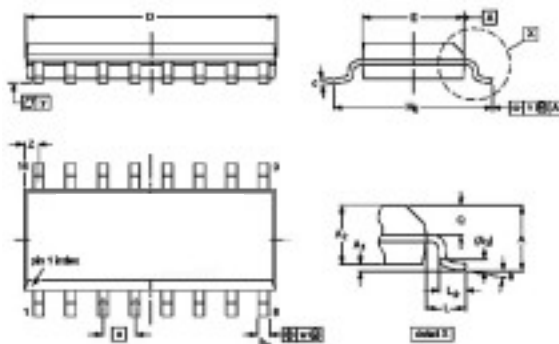


TEA2025BSOP16 LINEAR INTEGRATED CIRCUIT

STEREO AUDIO AMPLIFIER

DESCRIPTION

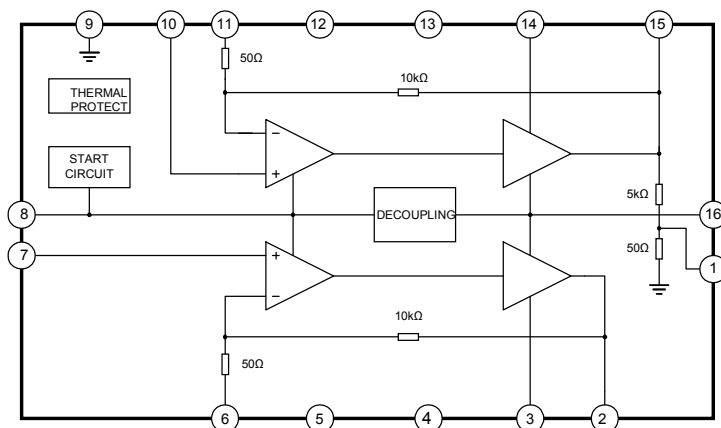
The TEA2025B is a monolithic integrated audio amplifier in a 16-pin plastic dual in line package. It is designed for portable cassette players and radios.



FEATURES

- *Working Voltage down to 3V
- *Few External components
- *High Channel isolation
- *Voltage gain up to 45dB(Adjustable with external resistor)
- *Soft clipping
- *Internal Thermal protection

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Value	Unit
Supply Voltage	Vs	12	V
Output Peak Current	Io	1.5	A
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-40r--+150	°C

TEA2025BSOP16 LINEAR INTEGRATED CIRCUIT

ELECTRICAL CHARACTERISTICS

(Tamb=25°C, VCC=9V, Stereo, Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Supply Voltage	Vs		3		12	V
Quiescent Current	Iq			40	50	mA
Quiescent output voltage	Vo			4.5		V
Voltage gain	Av	Stereo	43	45	47	dB
		Bridge	49	51	53	
Voltage gain difference	ΔAv				±1	dB
Input impedance	Ri			30		kΩ
Output Power	Po	f=1kHz; d=10% Stereo per channel VCC=9V; RL=4Ω RL=8Ω	1.7	2.3 1.3		
		VCC=6V; RL=4Ω RL=8Ω	0.7	1 0.6		W
		VCC=3V; RL=4Ω		0.1		
		Bridge VCC=9V; RL=8Ω		4.7		
		VCC=6V; RL=4Ω		2.8		
Distortion	d	VCC=9V; RL=4Ω f=1kHz; Po=250mW Stereo	-	0.3	1.5	%
		Bridge	-	0.5	-	
Supply voltage Rejection	SVR	RG=0; Av=45dB Vripple=150mVRMS Fripple=100Hz	40	46	-	dB
Input noise Voltage	Vn	Av=200 Bandwidth: 20Hz to 20kHz RG=0	-	1.5	3	μV
		RG=10kΩ	-	3	6	
Cross-Talk	C.T.	RG=10kΩ; f=1kHz; RL=4Ω PO=1W	40	55	-	dB

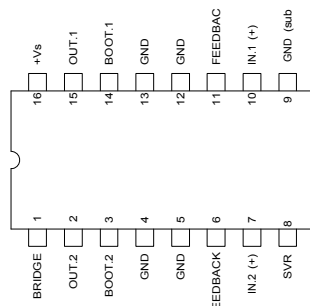
THERMAL RESISTANCE

Rth(j-c): Junction to case thermal resistance 15°C /W

Rth(j-a): Junction to ambient thermal resistance 60°C /w

TEA2025BSOP16 LINEAR INTEGRATED CIRCUIT

PIN CONNECTION



TYPICAL PERFORMANCE CHARACTERISTICS

