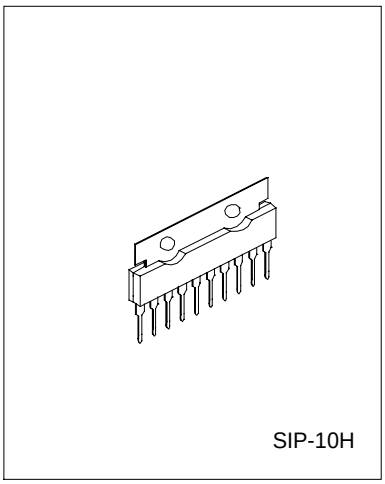
5.8W AUDIO POWER AMPLIFIER



DESCRIPTION

The UTC7217 is a monolithic integrated circuit designed for car stereo, car radio output.

FEATURES

*Output Power:

Pout= 5.8W(Typ.), at Vcc=13.2V, RL=4Ω,THD=10%

Pout= 9.2W(Typ.), at Vcc=13.2V, RL=2Ω,THD=10%

*Low Distortion

THD=0.15% at Pout=1W,Gv=55dB

THD=0.07% at Pout=1W,Gv=44dB

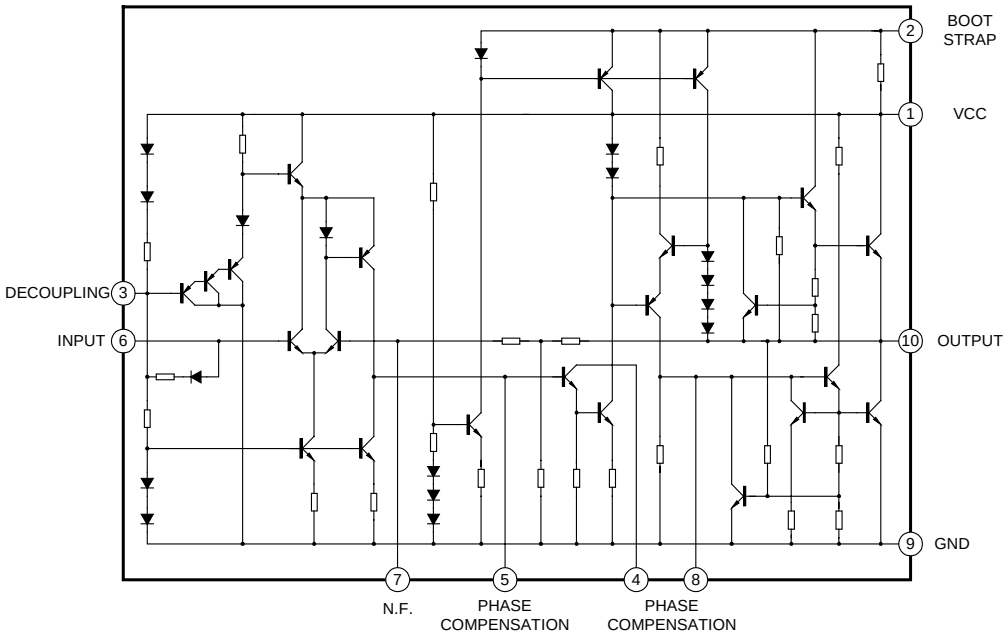
*Wide Operating Supply Voltage: Vcc=9V~18V

*Excessive Supply Voltage protection Circuit

*Current Limiting for Short Circuit Protection

*Thermal Shut-down Circuit

EQUIVALENT CIRCUIT



ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

Characteristic	Symbol	Value	Unit
Operating Supply Voltage	Vcc	18	V
Quiescent Supply Voltage	V_{CCQ}	25	V
Peak Output Current	Iop	4.5	A
Power Dissipation	P_D	7.5	W
Operating Temperature	Topr	-20 to +75	°C
Storage Temperature	Tstg	-55 to 155	°C

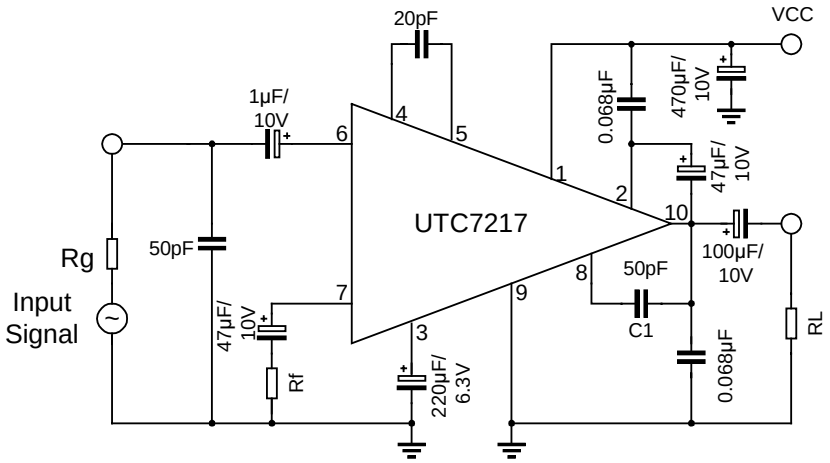
ELECTRICAL CHARACTERISTICS

(Ta=25°C,Vcc=12.5V,RL=4Ω,Rg=600Ω,Rf=82Ω,f=1kHz, unless otherwise specified)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Quiescent Current	I_{CCQ}	Vcc=12.5V			60	mA
		Vcc=18V			80	mA
Output Power	Pout	THD=10%	4.5	5		W
		Vcc=13.2V, THD=10%		5.8		W
		Vcc=13.2V, THD=10%,RL=2Ω		9.2		W
Maximum Output Power	Pom	Vcc=13.2V		9.5		W
Votage Gain (note)	Gv	Vin=2.45mVrms	52		58	dB
Input resistance	Rin	Vout=2Vrms	30	40		kΩ
Output Noise Voltage	Vno	Rg=10kΩ,BW=50~20kHz			3.5	mV

Note: In regard to value of voltage gain (closed loop voltage, it is possible to classified.

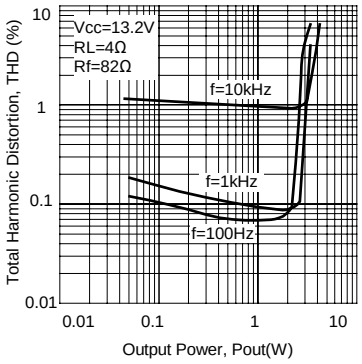
TEST AND APPLICATION CIRCUIT



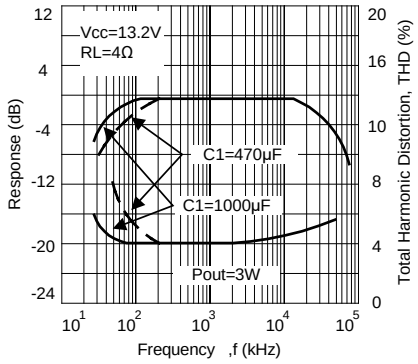
Note: Metal tab is connected to GND level or non connection. C7 and C11 are polyester film capcitor.

TYPICAL CHARACTERISTICS PERFORMANCE

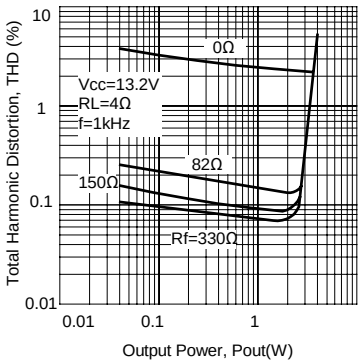
THD Vs. Pout



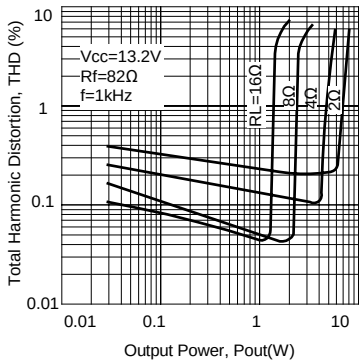
THD ,Response vs. Frequency



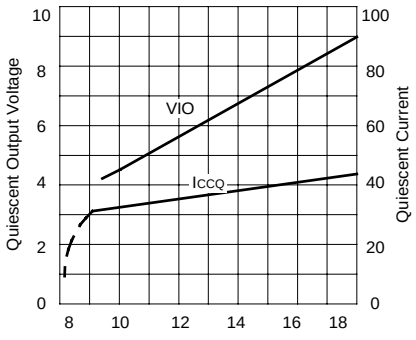
THD Vs. Pout



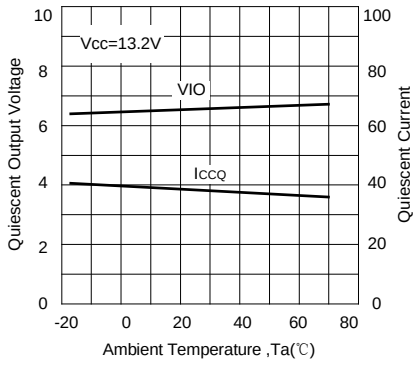
THD Vs. Pout



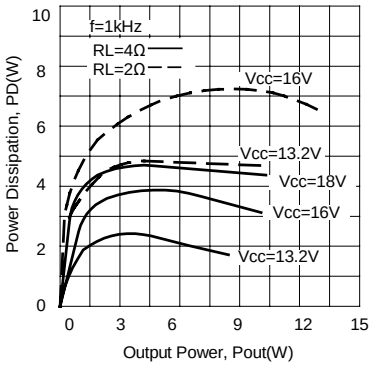
ICCQ,VIO Vs. Vcc



ICCQ,VIO Vs. Ta



PD Vs. Pout



PD Vs. Ta