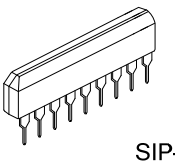
A6225

LINEAR INTEGRATED CIRCUIT

DUAL PRE-AMPLIFIER



SIP-9

■ FEATURES

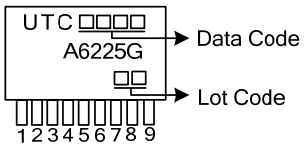
* Dual pre amplifier for cat or home stereo use.
* High voltage gain: G_{VO} = 100dB (Typ.) at f= 1kHz.
* Excellent channel separation and high ripple rejection
  : CS = 65dB(Typ.)
  (f = 10kHz, R_G = 2.2kΩ, V_{OUT}= 0dBm)
  : RR = 50dB(Typ.)
* Low noise: V_{NI} = 1.0μV(Typ.) at R_G = 2.2kΩ, Bw =20Hz~20kHz
* Wide operating supply voltage range: V_{CC} = 6~16V (T_A = 25°C)

■ ORDERING INFORMATION

Ordering Number	Package	Packing
A6225G-G09-T	SIP-9	Tube

A6225G-G09-T (1)Packing Type (2)Package Type (3)Green Package	(1) T: Tube (2) G09: SIP-9 (3) G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	16	V
Power Dissipation (Note 2)	P_D	700	mW
Operating Temperature	T_{OPR}	-20 ~ +85	°C
Storage Temperature	T_{STG}	-40 ~ +150	°C

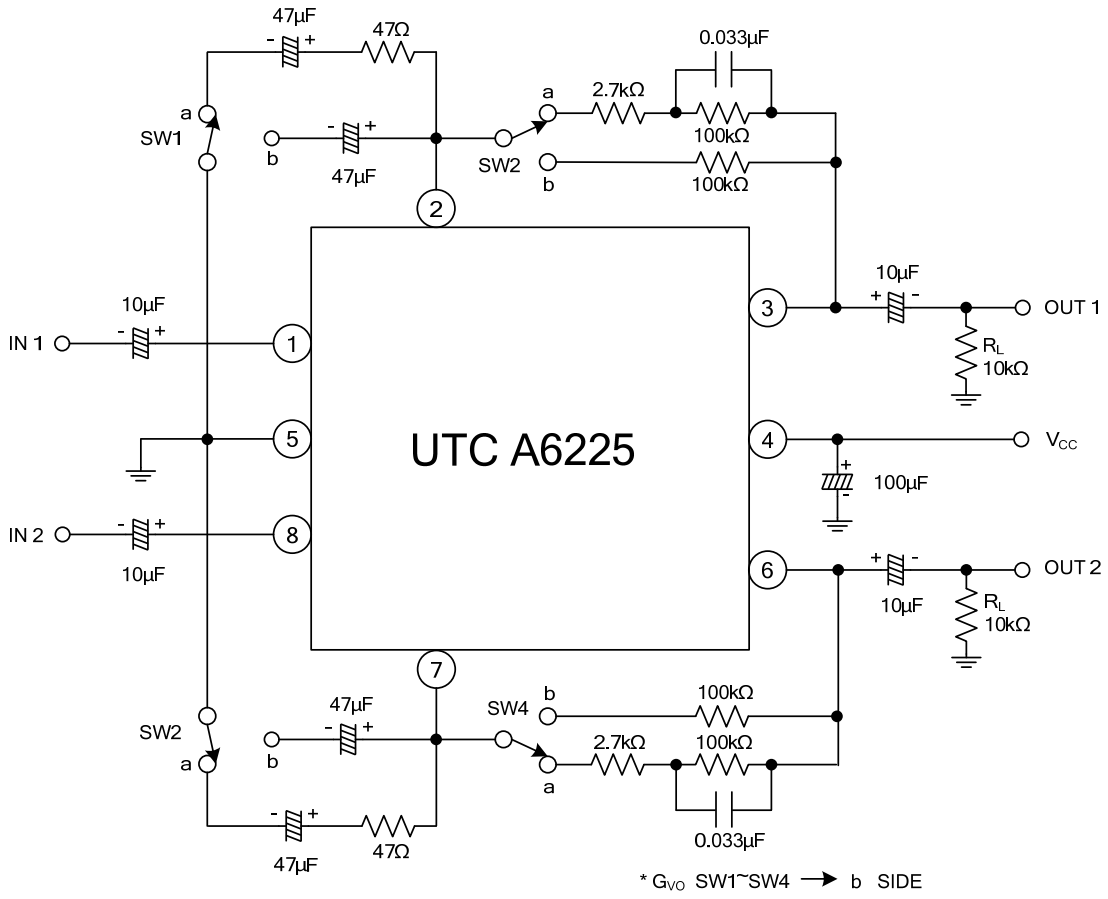
Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
2. Derated above T_A = 25°C in the Proportion of 5.6mW/°C.

■ ELECTRICAL CHARACTERISTICS

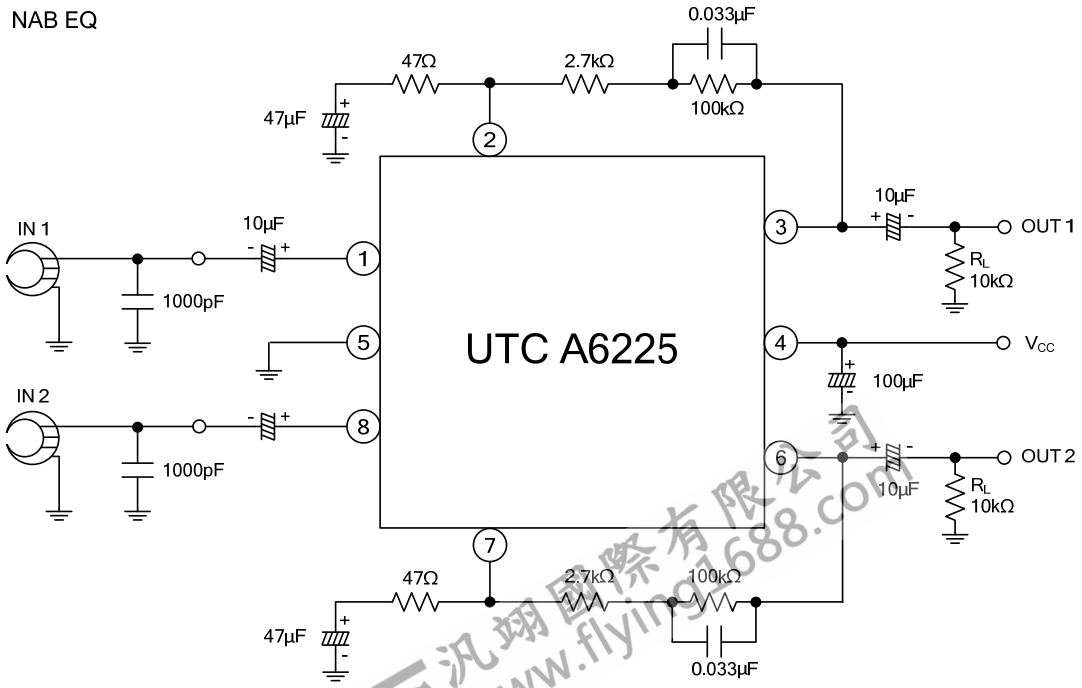
(T_A=25°C, V_{CC} 6V, R_G=600Ω, R_L=10kΩ, f=1kHz, unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Current		I_{CC}	V_{IN} = 0V		3	6	mA
Voltage Gain	OPEN	G_{VO}	V_{OUT} = 0dBm	75	100		dB
	CLOSED	G_{VC}	V_{OUT} = 0dBm	38.5	41.5	44.5	
Maximum Output Voltage		$V_{O(MAX)}$	THD = 1%	1.0	1.8		V
Equivalent Input Noise Voltage		$V_{IN(NO)}$	R_G = 2.2kΩ, BPF = 20Hz ~ 20kHz		1.0	1.7	μV
Input Resistance		R_{IN}		50	150		kΩ
Channel Separation		CS	f = 10kHz, V_{OUT} = 0dBm		65		dB
Ripple Rejection		RR	f = 10kHz, R_G = 2.2kΩ		50		dB
Total Harmonic Distortion		THD	V_{OUT} = 0dBm		0.04	0.25	%

■ TEST CIRCUIT

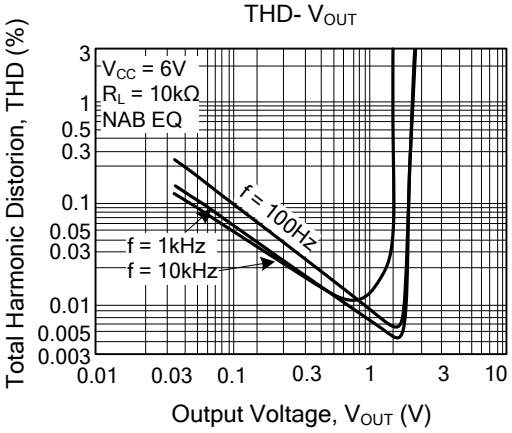


■ TYPICAL APPLICATION CIRCUIT

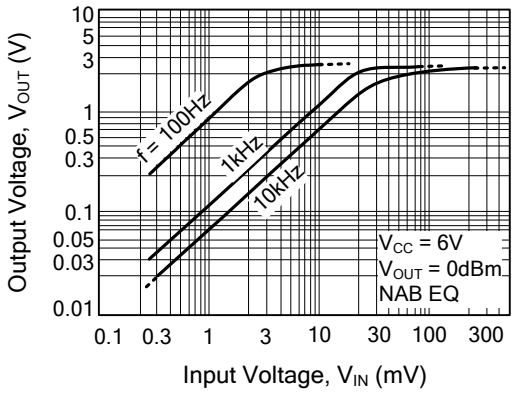


■ TYPICAL CHARACTERISTICS

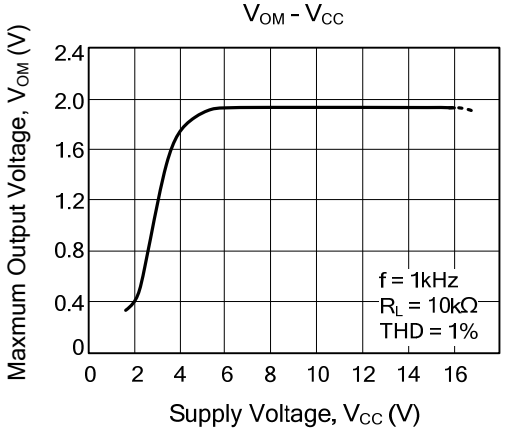
THD- V_{OUT}



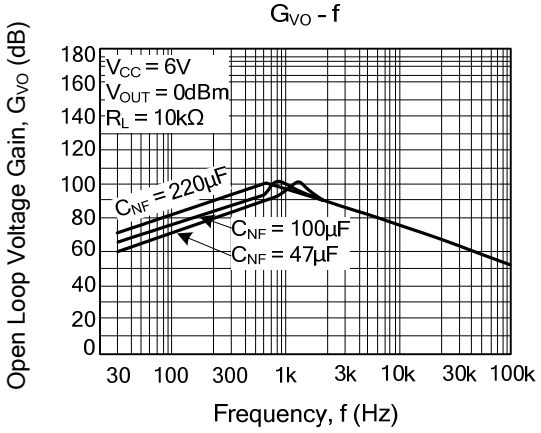
V_{OUT} - V_{IN}



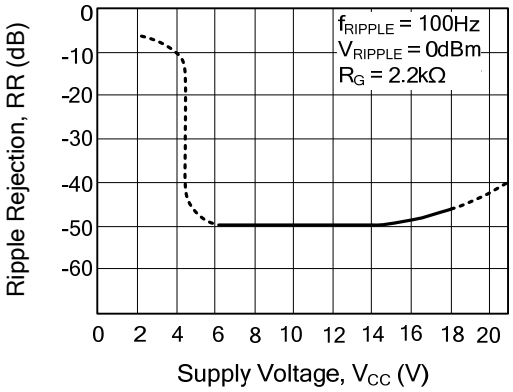
V_{OM} - V_{CC}



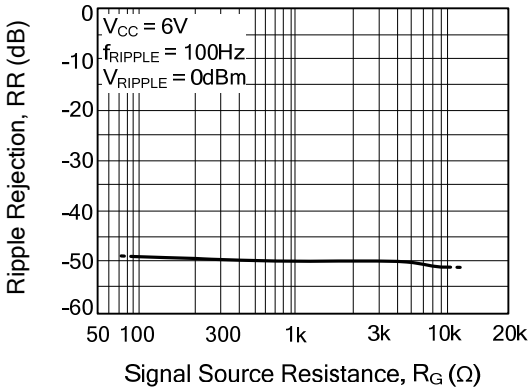
G_{VO} - f



RR - V_{CC}

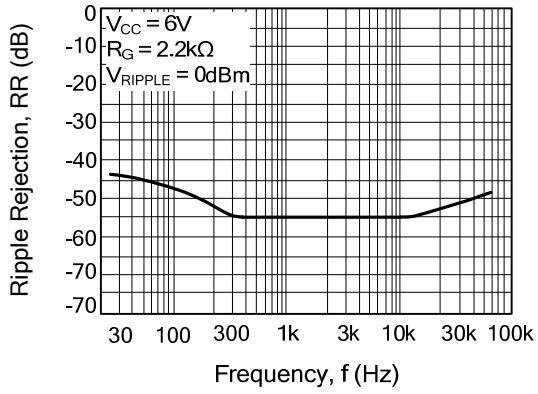


RR - R_G

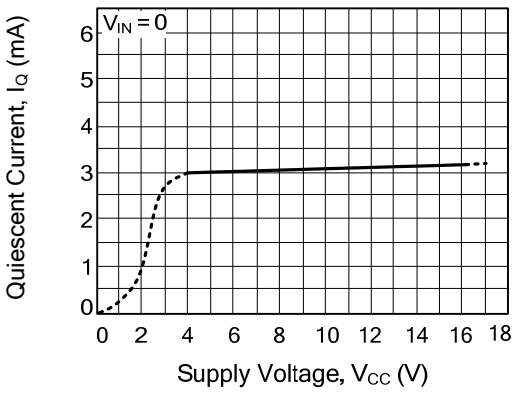


■ TYPICAL CHARACTERISTICS

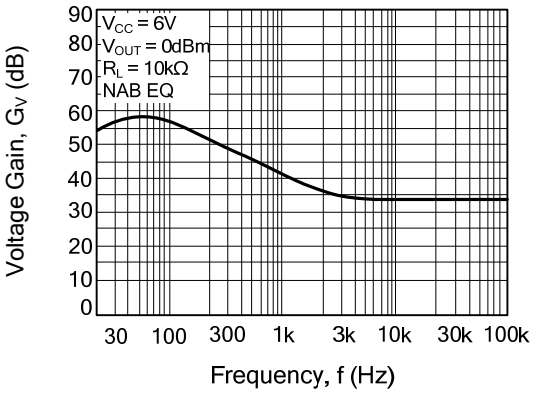
RR - f



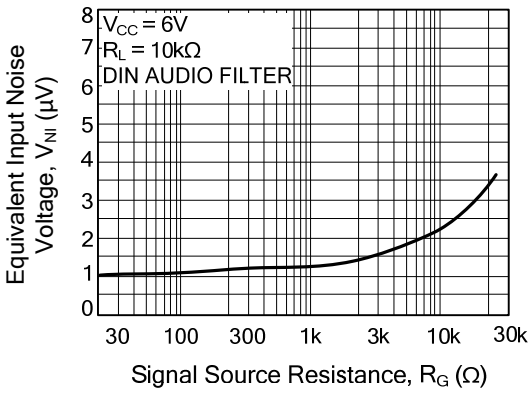
I_Q - V_{CC}



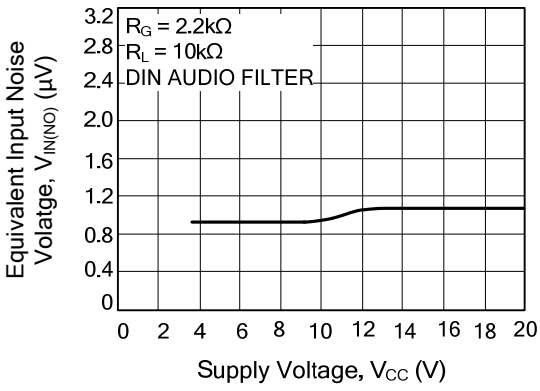
G_V - f



V_{NI} - R_G



$V_{IN(NO)}$ - V_{CC}



CS - f