



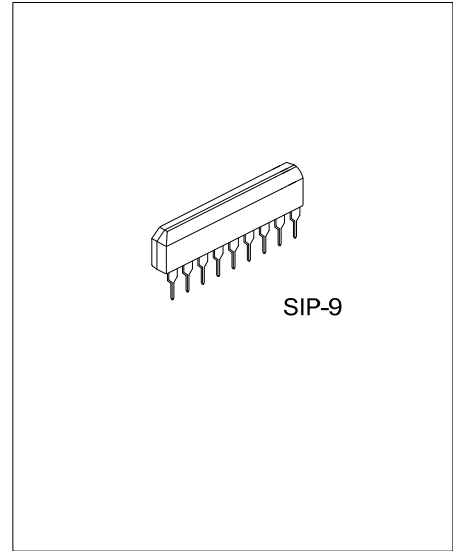
## A6225

## LINEAR INTEGRATED CIRCUIT

### DUAL PRE-AMPLIFIER

#### FEATURES

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

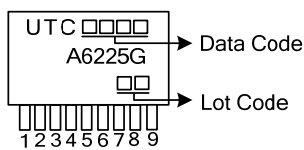


#### ORDERING INFORMATION

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

<p>A6225G-G09-T</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) T: Tube</li> <li>(2) G09: SIP-9</li> <li>(3) G: Halogen Free and Lead Free</li> </ul>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ , 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	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ +150	$^\circ\text{C}$

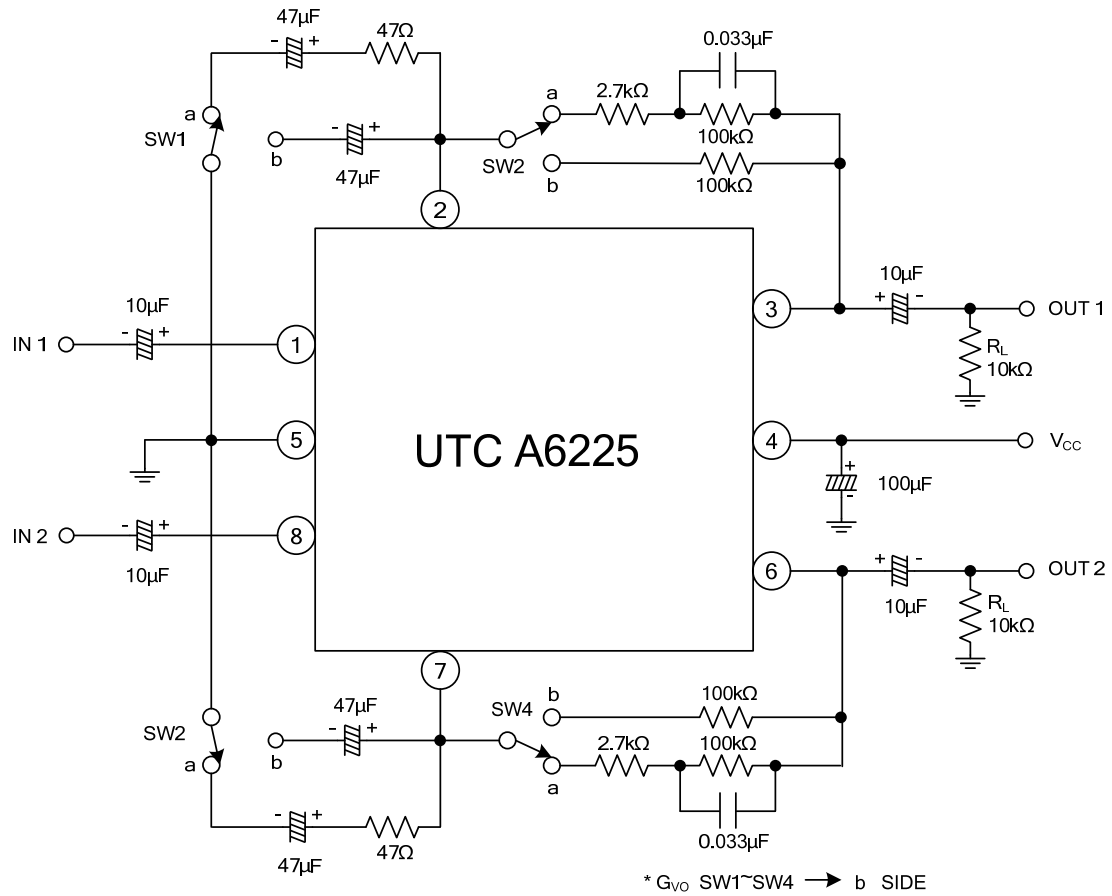
Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.  
2. Derated above  $T_A = 25^\circ\text{C}$  in the Proportion of  $5.6\text{mW}/^\circ\text{C}$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

■ ELECTRICAL CHARACTERISTICS

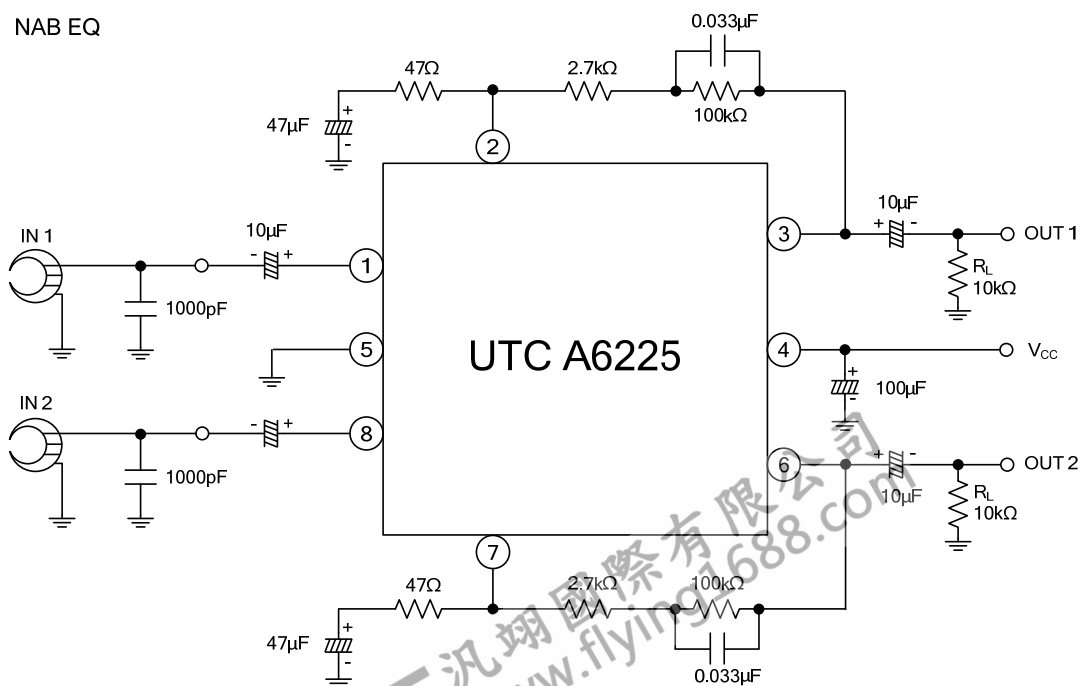
( $T_A=25^\circ\text{C}$ ,  $V_{CC}$  6V,  $R_G=600\Omega$ ,  $R_L=10\text{k}\Omega$ ,  $f=1\text{kHz}$ , unless otherwise specified)

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

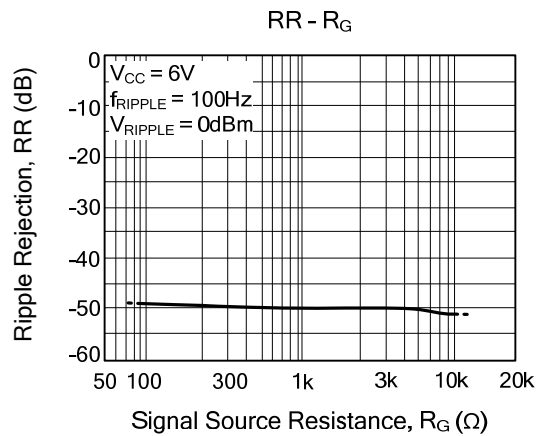
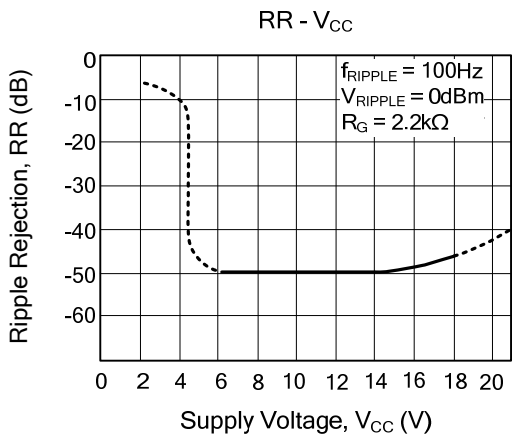
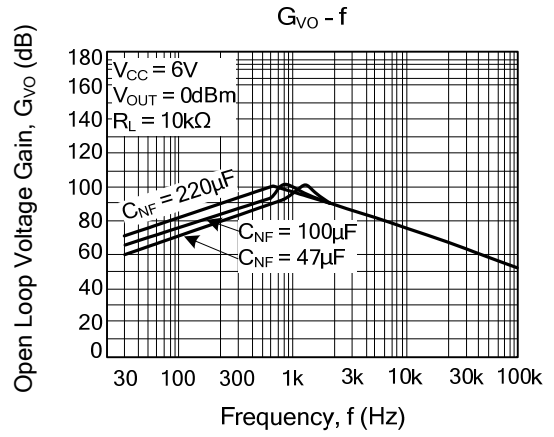
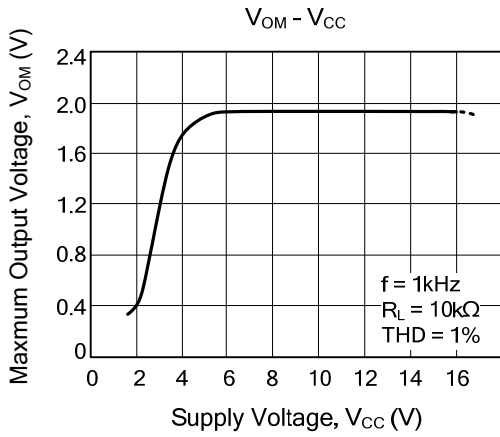
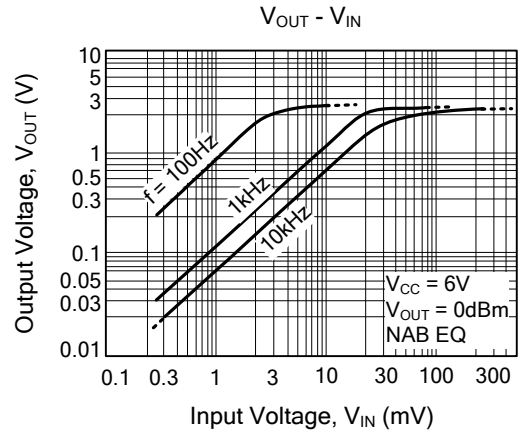
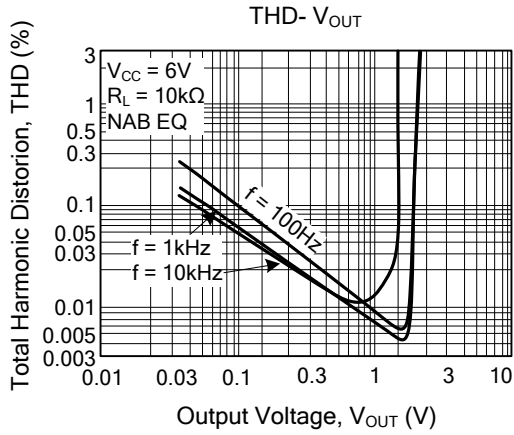
## TEST CIRCUIT



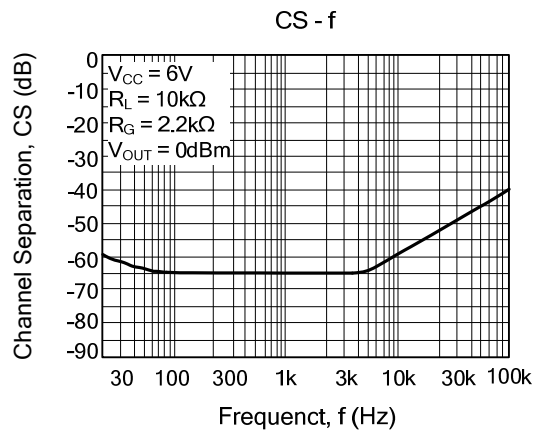
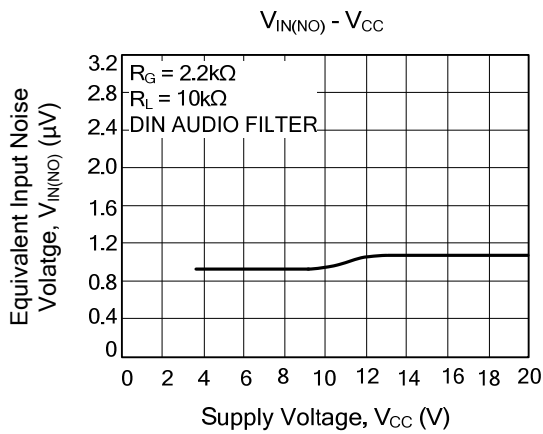
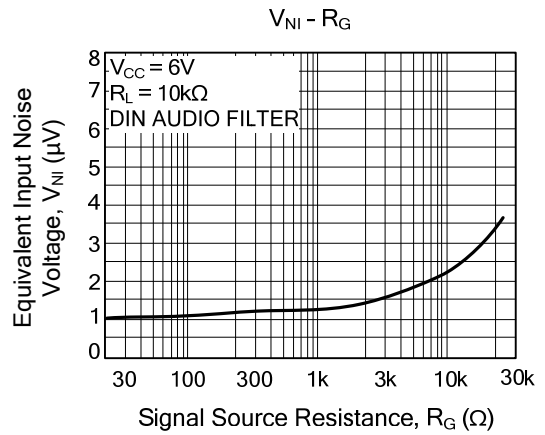
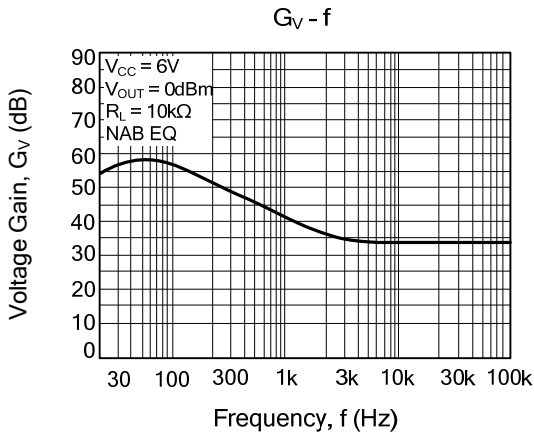
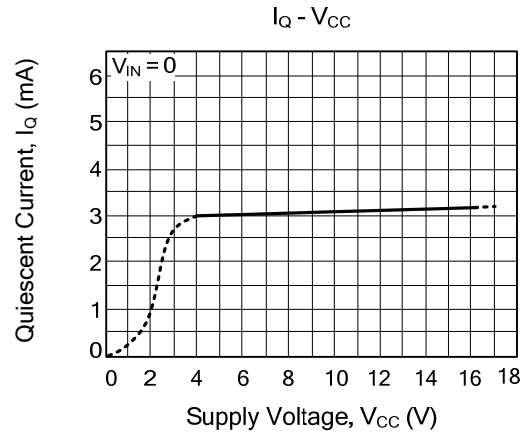
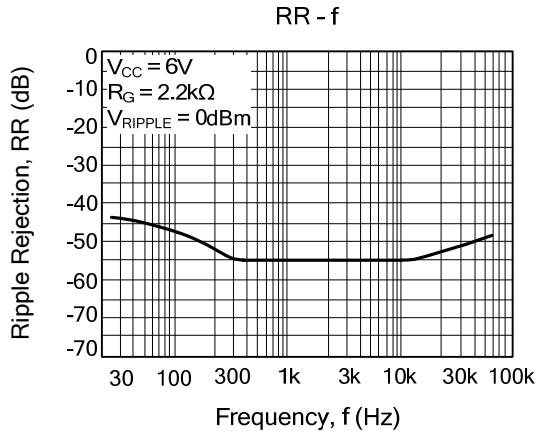
## TYPICAL APPLICATION CIRCUIT



■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS



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