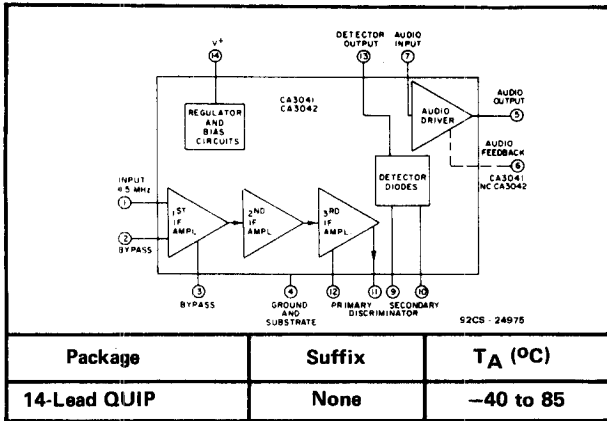


TV SOUND IF CIRCUITS SUMMARIZED							
Type	Characteristics						
	No. of IF Lim. Stages	Input Lim. Knee	Detector Type	Recovered Audio at Det.	Electronic Attenuator	Audio Voltage Gain	Audio Output Res.
CA2111A	3	250 μ V	Quadrature	720mV	No		2K Ω
CA3041	3	150 μ V	Discrim.	250mV	No	40dB	30K Ω
CA3042	3	150 μ V	(2 coils)	250mV	No	10dB	250 Ω
CA3065	3	200 μ V	Diff. Peak (1 coil)	750mV	80dB	20dB	270 Ω

Wide-Band Amplifier/Limiter/FM Detector/Audio Drivers

CA3041

CA3042

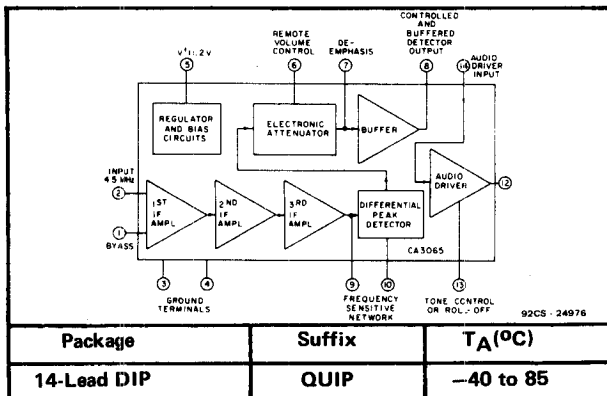


Applications and Features

For sound sections of TV receivers using:
 Tube-type AF output amplifiers, (CA3041)
 Transistor-type AF output amplifiers, (CA3042)
 Inherent high stability, internally shielded
 Internal Zener-diode-regulated voltage supply
 Low total harmonic distortion (THD) High-audio-drive capability
 Wide frequency range: < 100kHz to > 20MHz
Typical Electrical Characteristics at T_A = 25°C
 Voltage Gain:
 IF Amplifier (both types) at 4.5MHz 67 dB
 AF Driver (CA3041) at 1kHz 41 dB
 AF Driver (CA3042) at 1kHz 30 dB
 Input Limiting Voltage (knee) at 4.5MHz . . . 150 μ V rms
 AM Rejection at 4.5MHz 58 dB
 Total Harmonic Distortion at 4.5MHz 1.5 %

File Nos. 318, 319*; ICAN-5841, 5765*

TV Sound System IF Amplifier/Limiter/FM Detector/Electronic Attenuator/Audio Driver CA3065

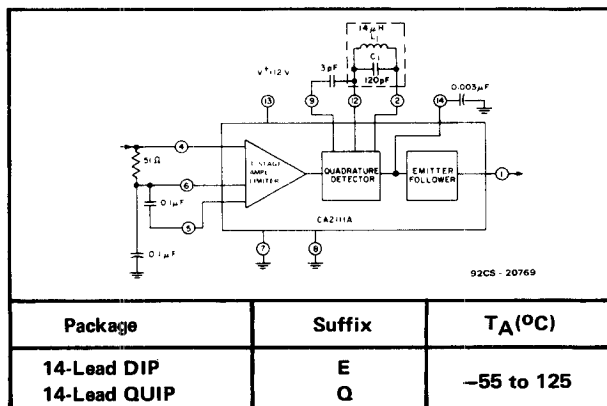


Applications and Features

Sound IF amplifier
 Differential peak (FM) detector:
 requires one single-tuned coil
 Electronic attenuator: replaces
 sound system volume control
 Audio driver
 Internal Zener-diode supply-
 voltage regulator
 Audio drive capability: 6mA p-p
 Undistorted audio output
 voltage: 7V p-p
 Low total harmonic distortion
Typical Electrical Characteristic at T_A = 25°C
 Audio Voltage Gain 20 dB
 Input Limiting Voltage at 4.5MHz 200 μ V
 Recovered AF Voltage 0.75 V rms
 AM Rejection at 4.5MHz 50 dB
 Audio Attenuation 80 dB
 File No. 412*

TV or FM IF Amplifier-Limiter/Quadrature Detector

CA2111A



Applications and Features

Sound if amplifier and quadrature
 detector for both TV and FM
 receiver applications
 Single-coil tuning
 Direct replacement for types
 ULN-2111A and MC1357

Typical Dynamic Characteristics at T_A = 25°C, V⁺ = 12V

	fo -	4.5MHz	5.5MHz	10.7MHz	Units
	Δf -	± 25 kHz	± 50 kHz	± 75 kHz	
Amplifier Voltage Gain (V _{IN} \leq 50 μ V rms)		60	60	53	dB
AM Rejection (V _{IN} = 10mV rms)		36	40	45	dB
Input Limiting Voltage		250	250	400	μ V rms
Recovered AF Voltage		720	1200	500	mV rms
Total Harmonic Distortion		3	5	1.4	%

File No. 612*

*Refer to indicated File No. for data bulletin and where given to indicated ICAN No. for application note.