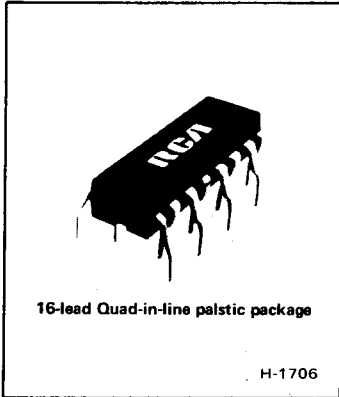


CA3128Q

TV Chroma Processor for PAL Systems



16-lead Quad-in-line palstic package

H-1706

Features:

- Phase-locked subcarrier regeneration utilizes sample-and-hold techniques in the automatic frequency phase control [AFPC] servo loop
- Automatic chrominance control [ACC]/killer detector employs sample-and-hold techniques
- Supplementary ACC with an overload detector to prevent oversaturation of the picture tube
- Sinusoidal subcarrier output
- Keyed chroma output
- Emitter-follower buffered outputs for low output impedance
- Linear dc saturation control
- PAL identification output
- Only the initial crystal filter tuning is required . . . no killer and ACC adjustments required at any time
- Few external components required
- Compensation for temperature and supply variations
- All terminals protected against short circuits

The RCA-CA3128Q is a monolithic silicon integrated circuit designed primarily for PAL chroma processing applications in color TV receivers. For a circuit description of the

CA3128Q and an explanation of this device in PAL systems, refer to "A New Chroma Processing IC Using Sample-and-Hold Techniques" by L.A. Harwood (ST6144).

MAXIMUM RATINGS, Absolute-Maximum Values at $T_A = 25^\circ C$

DC SUPPLY VOLTAGE (Between Terms. 12 and 15)	13.2 V
DC VOLTAGE (Term. 9):	
Positive Value	+3 V
Negative Value	-5 V
DEVICE DISSIPATION:	
Up to $T_A = 55^\circ C$	750 mW
Above $T_A = 55^\circ C$	derate linearly at 7.9 mW/ $^\circ C$
AMBIENT TEMPERATURE RANGE:	
Operating	-40 to +85 $^\circ C$
Storage	-65 to +150 $^\circ C$
LEAD TEMPERATURE (DURING SOLDERING):	
At a distance not less than 1/32" (0.79 mm) from case for 10 seconds max.	+265 $^\circ C$.

TYPICAL STATIC CHARACTERISTICS at $T_A = 25^\circ C$:

DC Supply Current (I_{12}) with $V_{12} = 11.2 V$ dc.	25 mA
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TYPICAL DYNAMIC CHARACTERISTICS at $T_A = 25^\circ C$ with a Burst-to-Chroma Ratio of 46.5%:

100% Chroma Output Voltage at $V_{1(p-p)} = 0.5 V$	3.5 V_{p-p}
Oscillator-Level Output Voltage	1 V_{p-p}
Killer Threshold Input Voltage	0.018 V_{p-p}
Pull-in Frequency	500 Hz
PAL Identification Output Voltage	1 V_{p-p}

Linear Integrated Circuits

CA3128Q

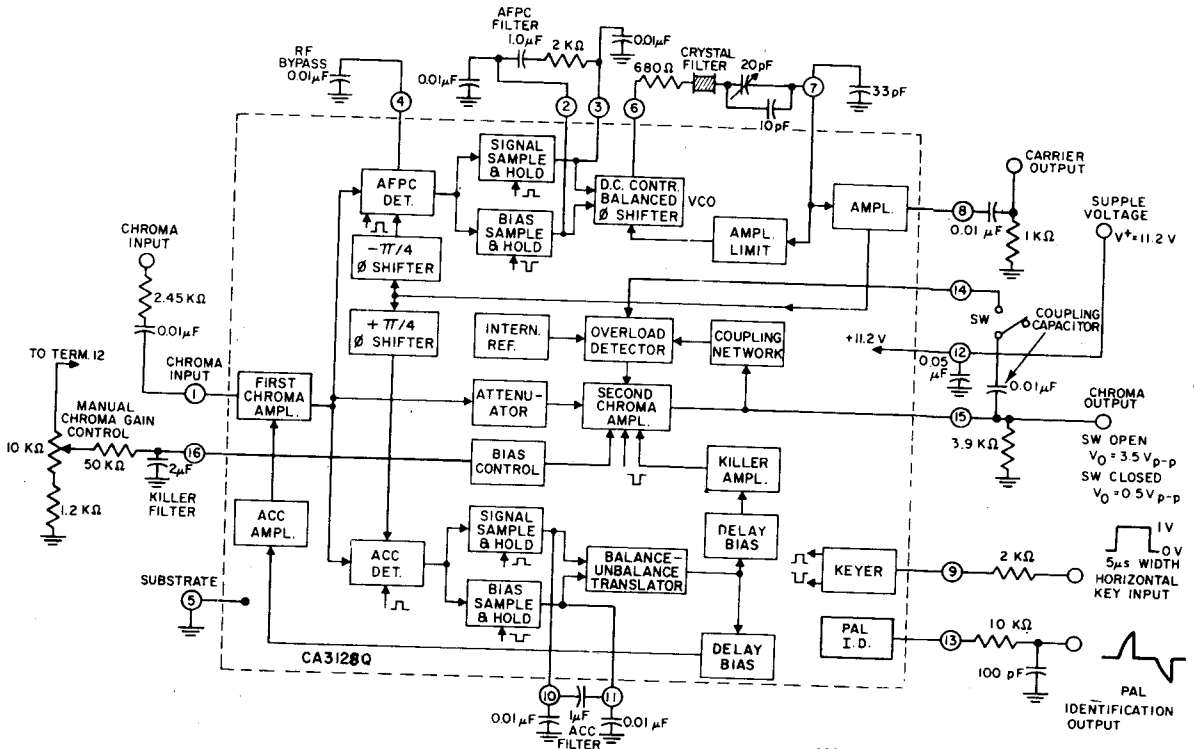


Fig. 1 - Block diagram of CA3128Q TV Chroma Processor.