

# MC44030 MC44035

## Product Preview

# Multistandard Video Signal Processor with Integrated Chroma Delay Line

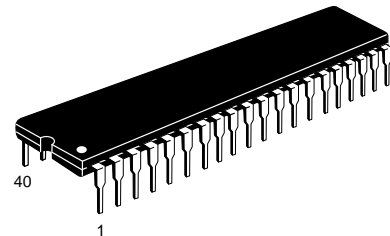
The MC44030/35 is a highly advanced circuit which performs most of the basic functions required for a color TV. All its advanced features are under processor control via I<sup>2</sup>C bus, enabling potentiometer controls to be removed completely and allowing significant cost savings together with the possibility of implementing sophisticated automatic test routines.

A summary of the features available on the device is given below:

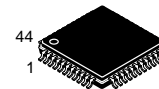
- Operation from a Single 5.0 V Supply; Low Current Consumption (Typically 150 mA)
- PAL/SECAM/NTSC Decoding Capability (4 Matrix Modes Available)
- Integrated Chroma Delay Line
- Dual Composite Video or S-VHS Inputs
- Integrated Luma and Chroma Filters (Including SECAM Cloche Filter)
- Programmable Luma Delay and Peaking
- RGB Drives Including CONTRAST/BRIGHTNESS Controls and Auto Grey-Scale
- External RGB and Fast Commutate Inputs with SATURATION Control Possibility
- Auxiliary Y, R-Y, B-Y Inputs
- Line Timebase Featuring H-PHASE Control and Switchable Phase Detector Gain
- Countdown Type Vertical Timebase Including the Vertical Geometry Corrections
- 16:9 Display Mode Capability
- E-W Parabola Drive Including the Horizontal Geometry Corrections
- Anode Current Monitor with Vertical Breathing Compensation
- Analog Contrast Control, Allowing Fast Beam Current Limitation
- Pin to Pin Compatible with MC44002/7
- MC44035 is the PAL/NTSC Only Version of the MC44030
- Available in DIP and TQFP Packages

## MULTISTANDARD VIDEO SIGNAL PROCESSOR WITH INTEGRATED CHROMA DELAY LINE

### SEMICONDUCTOR TECHNICAL DATA



**P SUFFIX**  
PLASTIC PACKAGE  
CASE 711



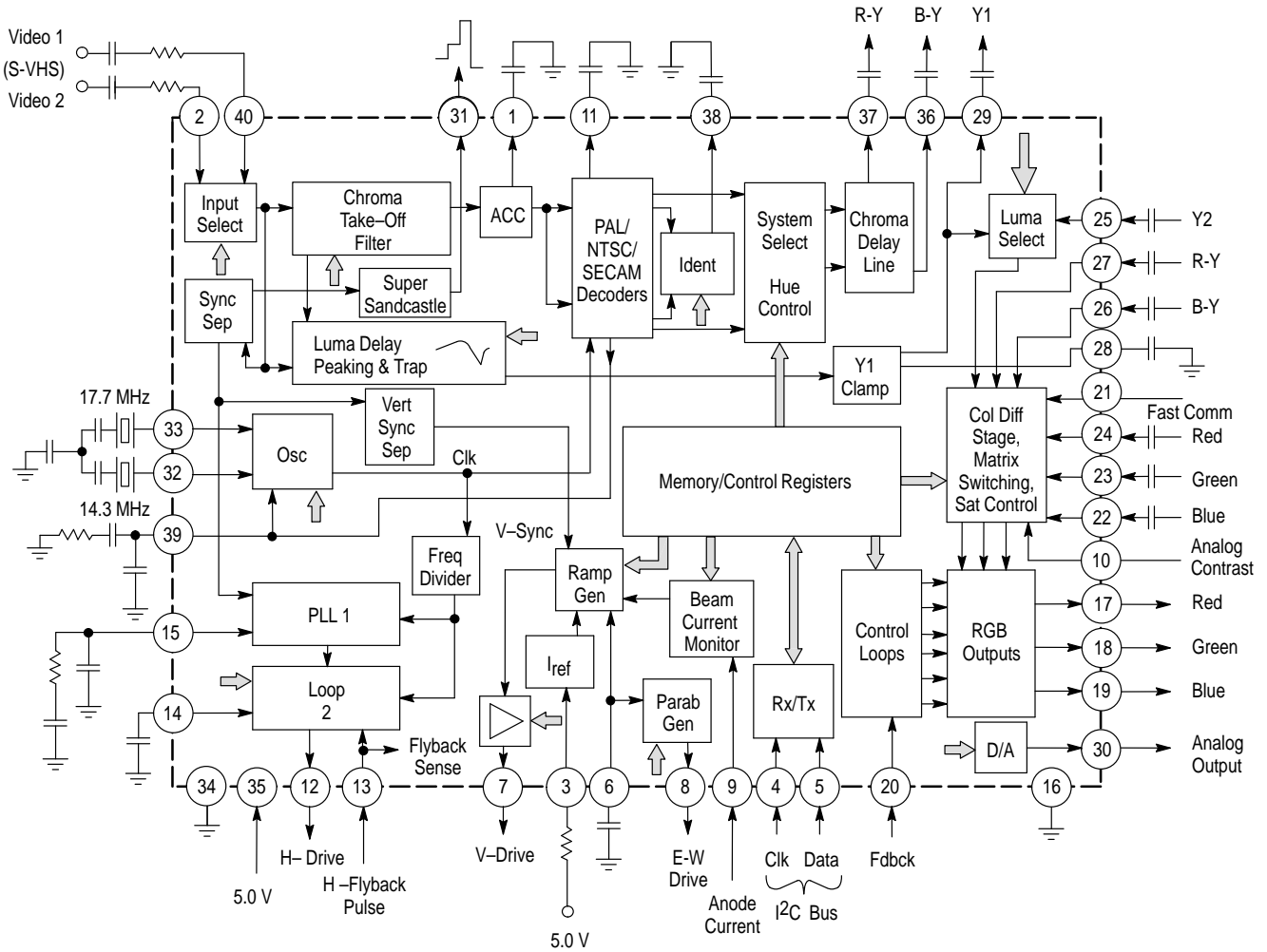
**FTB SUFFIX**  
PLASTIC PACKAGE  
CASE 824D  
(TQFP-44)

### ORDERING INFORMATION

Device	Operating Temperature Range	Package
MC44030P	T <sub>A</sub> = 0° to +70°C	Plastic DIP
MC44030FTB		TQFP-44
MC44035P		Plastic DIP
MC44035FTB		TQFP-44

# MC44030 MC44035

## Simplified Block Diagram

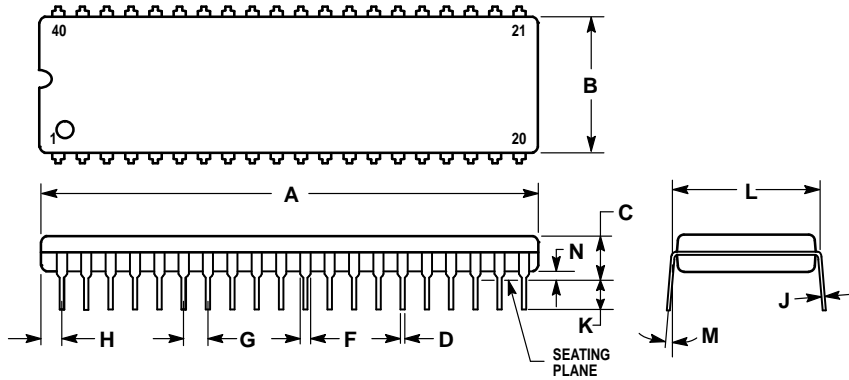


**NOTE:** Pin numbers shown are for the DIP package.

This device contains 6360 active transistors.

OUTLINE DIMENSIONS


P SUFFIX  
 PLASTIC PACKAGE  
 CASE 711-03  
 ISSUE C



NOTES:

1. POSITIONAL TOLERANCE OF LEADS (D), SHALL BE WITHIN 0.25 (0.010) AT MAXIMUM MATERIAL CONDITION, IN RELATION TO SEATING PLANE AND EACH OTHER.
2. DIMENSION L TO CENTER OF LEADS WHEN FORMED PARALLEL.
3. DIMENSION B DOES NOT INCLUDE MOLD FLASH.

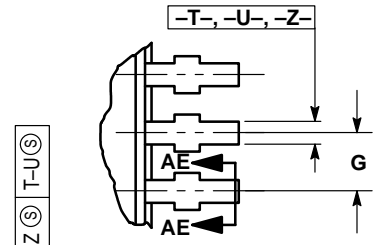
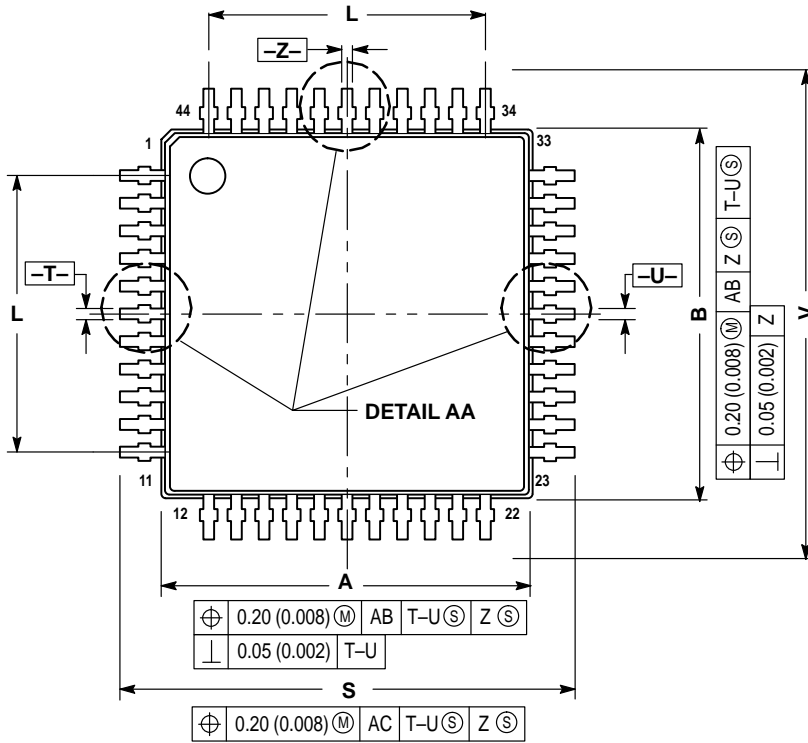
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	51.69	52.45	2.035	2.065
B	13.72	14.22	0.540	0.560
C	3.94	5.08	0.155	0.200
D	0.36	0.56	0.014	0.022
F	1.02	1.52	0.040	0.060
G	2.54 BSC		0.100 BSC	
H	1.65	2.16	0.065	0.085
J	0.20	0.38	0.008	0.015
K	2.92	3.43	0.115	0.135
L	15.24 BSC		0.600 BSC	
M	0°	15°	0°	15°
N	0.51	1.02	0.020	0.040

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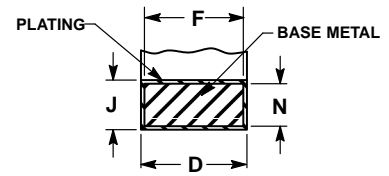
# MC44030 MC44035

## OUTLINE DIMENSIONS

**FTB SUFFIX**  
**PLASTIC PACKAGE**  
**CASE 824D-01**  
**(TQFP-44)**  
**ISSUE O**



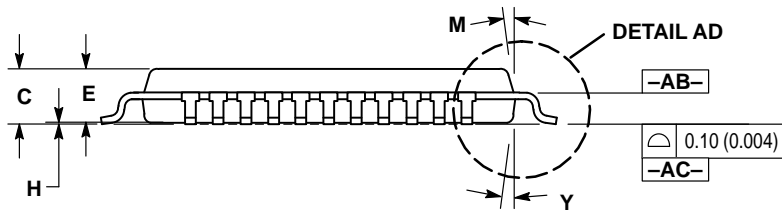
**DETAIL AA**



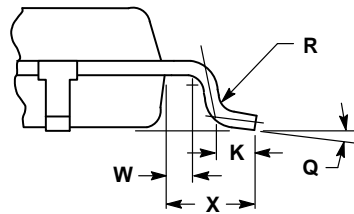
**SECTION AE-AE**

**NOTES:**

- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: MILLIMETER.
- DATUM PLANE -AB- IS LOCATED AT BOTTOM OF LEAD AND IS COINCIDENT WITH THE LEAD WHERE THE LEAD EXITS THE PLASTIC BODY AT THE BOTTOM OF THE PARTING LINE.
- DATUMS -T-, -U- AND -Z- TO BE DETERMINED AT DATUM PLANE -AB-.
- DIMENSIONS S AND V TO BE DETERMINED AT SEATING PLANE -AC-.
- DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE PROTRUSION IS 0.25 (0.010) PER SIDE. DIMENSIONS A AND B DO INCLUDE MOLD MISMATCH AND ARE DETERMINED AT DATUM PLANE -AB-.
- DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. DAMBAR PROTRUSION SHALL NOT CAUSE THE D DIMENSION TO EXCEED 0.530 (0.021).



**DETAIL AD**



**VIEW AD**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.950	10.050	0.392	0.396
B	9.950	10.050	0.392	0.396
C	1.400	1.600	0.055	0.063
D	0.300	0.450	0.012	0.018
E	1.350	1.450	0.053	0.057
F	0.300	0.400	0.012	0.016
G	0.800 BSC		0.031 BSC	
H	0.050	0.150	0.002	0.006
J	0.090	0.200	0.004	0.008
K	0.450	0.550	0.018	0.022
L	8.000 BSC		0.315 BSC	
M	12° REF		12° REF	
N	0.090	0.160	0.004	0.006
Q	1°	5°	1°	5°
R	0.100	0.200	0.004	0.008
S	11.900	12.100	0.469	0.476
V	11.900	12.100	0.469	0.476
W	0.200 REF		0.008 REF	
X	1.000 REF		0.039 REF	
Y	12° REF		12° REF	

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MC44030/D

