

SONY

CX20052A

8 bit 20MHz Sub-ranging A/D Converter

Description

CX20052A is a serial-parallel type high speed A/D converter with a resolution of 8 bit for processing video signals driven by a single $-5.0V$ power source.

It performs an A/D conversion of video signals with an external sample & holding circuit. A reference voltage and a clock should be added external to it.

The digital output is provided in 8 bit parallel with an open emitter. Both the clock and the digital output are in ECL level.

Features

- Maximum sampling frequency of 20 MHz (Min.)
- Low power consumption 700 mW (Typ.)
- Non-linearity error $\pm 1/2$ LSB
- $-5.0V$ single power supply
- Both clock input and digital output are in ECL level

Structure

Bipolar Silicon Monolithic IC.

Absolute Maximum Ratings ($T_a=25^\circ C$)

• Supply voltage	V _{EE}	-9.0	V
• Clock voltage	V _{CLK}	V _{EE} to +0.3	V
• Input signal voltage	V _{IN}	V _{EE} to +0.3	V
• Reference voltage	V _{REF}	V _{EE} to +0.3	V
• Digital output current	I _{OH}	10	mA
• Operating temperature	T _{opr}	-10 to +70	°C
• Storage temperature	T _{stg}	-50 to +150	°C
• Allowable power dissipation	P _d	1.47	W

Recommended Operating Conditions

• Supply voltage	V _{EE}	-5.25 to -4.75	V
• Clock voltage	V _{IH}	-1.04 to -0.74	V
	V _{IL}	-1.9 to -1.6	V
• Input signal voltage	V _{IN}	-2.0 to 0	V
• Reference voltage	V _{REF}	-2.1 to -1.9	V

Package Outline

Unit : mm

