

Dual 10 bit, 50 KHz, Multiplexed A/D + D/A

Description:

The CX23010/CX23060 are the 10 bit, 50 kHz CMOS A/D, D/A Converters for Audio digital signal processing, using a coarse-fine integration technique. Both Analog to Digital and Digital to Analog Conversions are capable with selecting the mode. It can be separated into 2 blocks. One is a digital block includes:

- Digital block includes:
 - A digital limiter
 - A counter
 - A timing generation circuit
- Analog block includes:
 - A current source
 - An operational amplifier
 - A comparator
 - A multiplexer (2-channel)

Features:

- A Single Power Supply: V_{DD} 5V
- Minimum Number of External Parts required (Around One-third Compared with our Current A/Ds)
- Two Channel Audio A/D, D/A Processing (L and R Channels)
- 2's Complementary Digital Code is employed
- Low Power Dissipation (Less than 50 mW)

Applications:

- Digital Audio Signal Processing
- PCM Audio Processing
- Telecommunications Digitizing
- Computer Interface System

Structure Silicon gate CMOSIC:

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

- Power Supply voltage: V_{DD} -0.3 to +7 V
- Analog Input Voltage: V_{IN} -0.3 to $V_{DD} + 0.3$ V
- Operating Temperature: T_{opr} -20 to +75 $^\circ\text{C}$
- Storage Temperature: T_{stg} -55 to +150 $^\circ\text{C}$
- Allowable Power Dissipation:

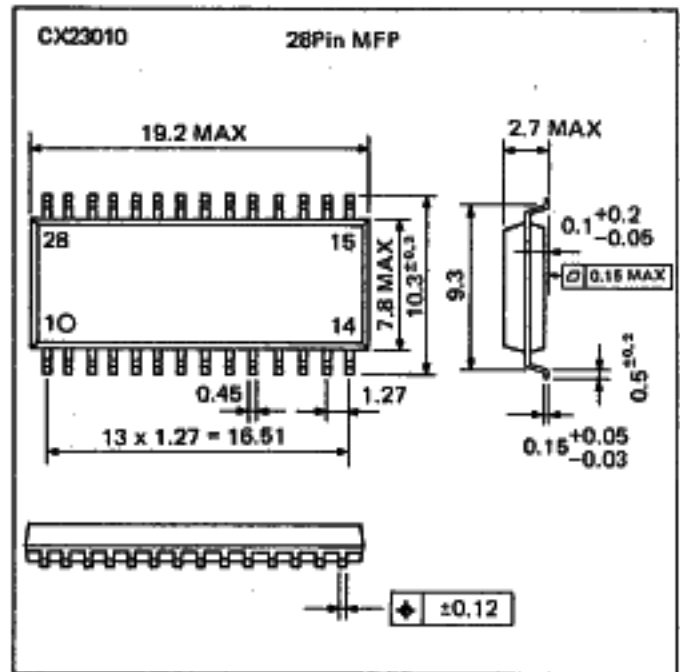
P_D	650 mW for CX23010
P_D	800 mW for CX23060

Recommended Operating Conditions

- (1) AV_{DD}, DV_{DD} 4.5 to 5.5 V
- (2) $AV_{DD} \leq DV_{DD} + 0.5$ V

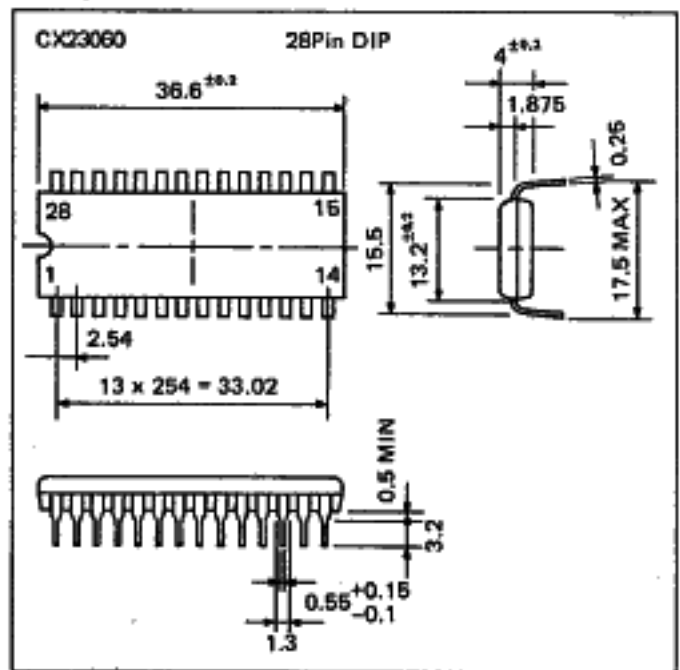
Package outline

Unit: mm



Package outline

Unit: mm



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