

SONY **CXB1502Q-Y**

Quad Exclusive OR/NOR Gate

T-43-22

Description

The CXB1502Q-Y is an ultra high speed monolithic ECL IC, which contains four Exclusive OR/NOR gates.

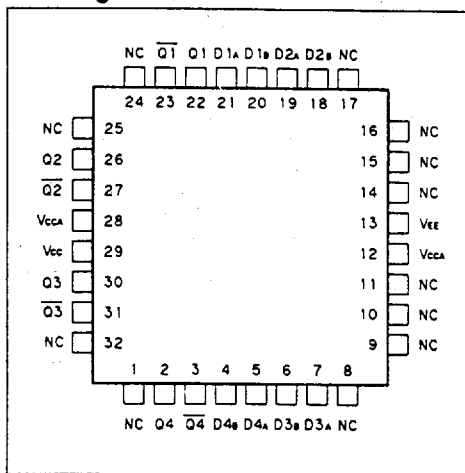
Features

- Typical AC characteristics $T_{pd}=580ps$
 $T_{rHL}=270ps$
 $T_{THL}=220ps$
- Internal pull down resistors on input pins to maintain logic LOW level with the pins left open
- ECL 100K compatible I/O levels
- Differential output

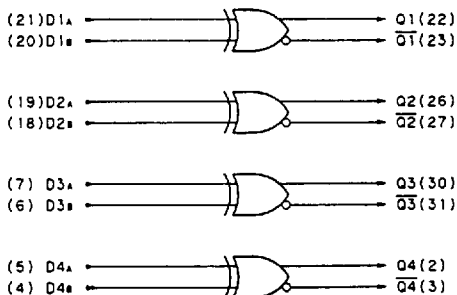
Pin Names

- D_{nA}, D_{nB} Data inputs
- Q_n, \overline{Q}_n Data outputs
- V_{CCA} Circuit ground for outputs
- V_{EE} Negative power supply

Pin Assignment



Logic Symbol



Truth Table

INPUT		OUTPUT	
D_{nA}	D_{nB}	Q_n	\overline{Q}_n
L	L	L	H
L	H	H	L
H	L	H	L
H	H	L	H

Note: H; HIGH voltage level
 L; LOW voltage level

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CX81502QY

DC Characteristics

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 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_c = 0^\circ C$ to $+85^\circ C$

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}		-170	-125	-87	mA

AC Characteristics

 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_c = 0^\circ C$ to $+85^\circ C$, $R_T = 50\Omega$ to V_{TT}

Item	Symbol	Input	Output	Test Condition	Min.	Typ.	Max.	Unit
Propagation delay time	T_{PLH}	Dna, Dnb	Qn		400	580	770	ps
	T_{PHL}				380	560	750	
Rise time	T_{TLH}			20% to 80%		270	380	
Fall time	T_{THL}					220	320	

Package Data

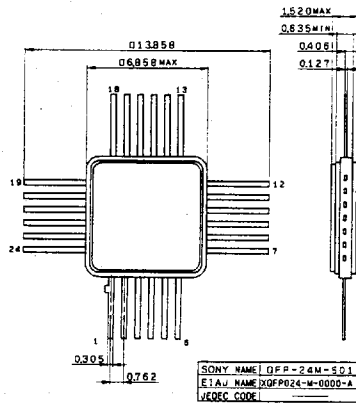
T-90-20

Package Outline

Unit: mm

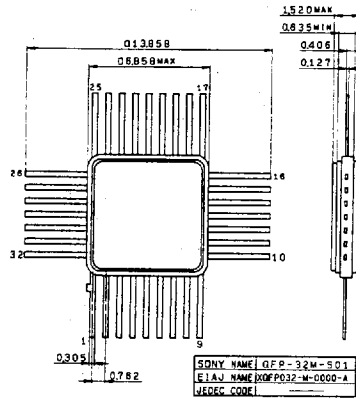
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



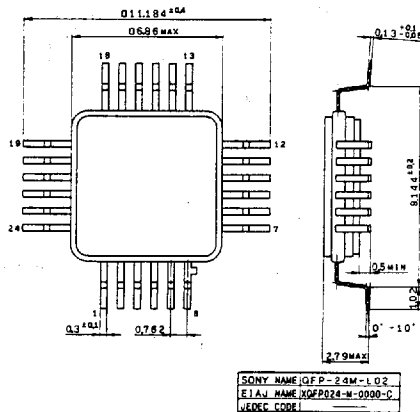
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

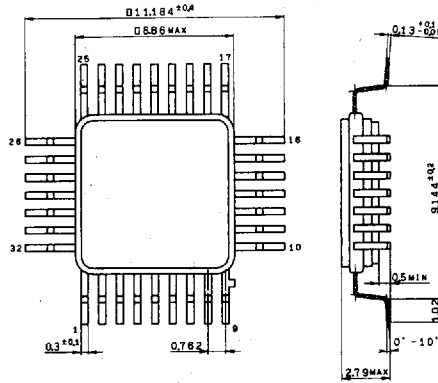
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

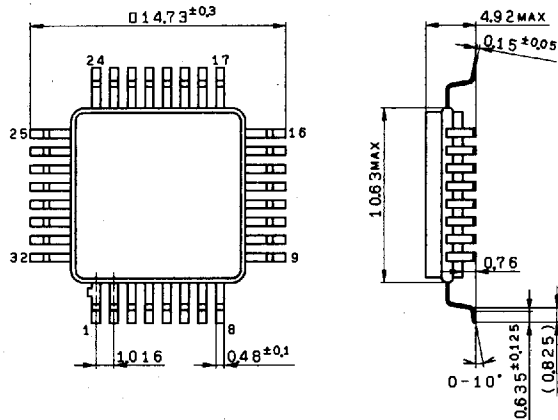
32pin QFP (Metal) 0.2g



SONY NAME	QFP-32M-L02
EIAJ NAME	XQFP032-M-0000-C
JEDEC CODE	

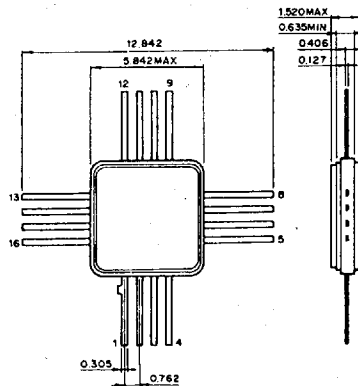
32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



SONY NAME	QFP-32C-L01
EIAJ NAME	XQFP032-G-0000-A
JEDEC CODE	

16pin QFP



Package Data

Package Data	Page
1. 16 pin QFP	6-3
2. 24 pin QFP	6-3
3. 32 pin QFP	6-3
4. 24 pin QFP with formed lead	6-4
5. 32 pin QFP with formed lead	6-4

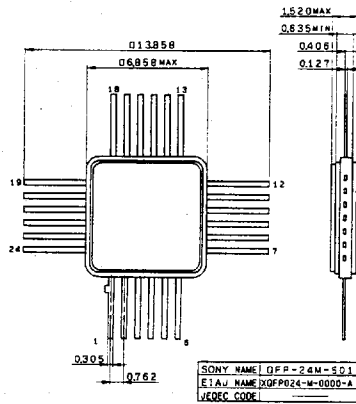
Package Data

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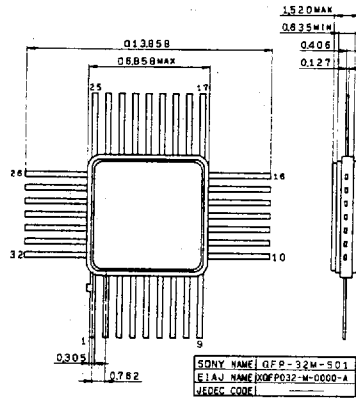
Package Outline

Unit: mm

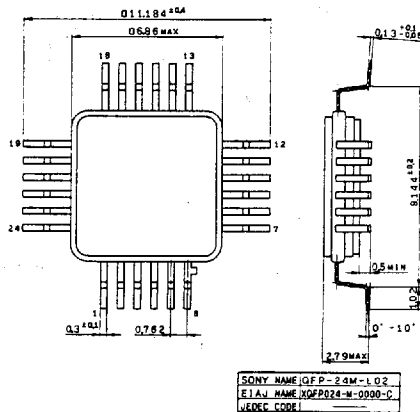
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24pin QFP (Metal) 0.3g



32pin QFP (QFP-32M-S01)
32pin QFP (Metal) 0.2g



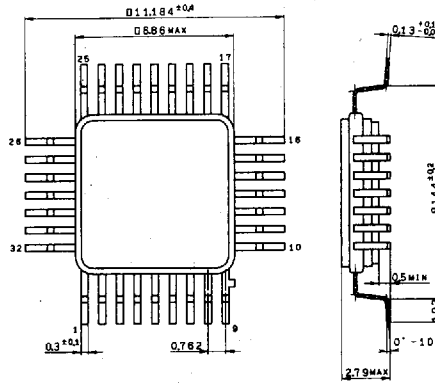
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32pin QFP (QFP-32M-L02)

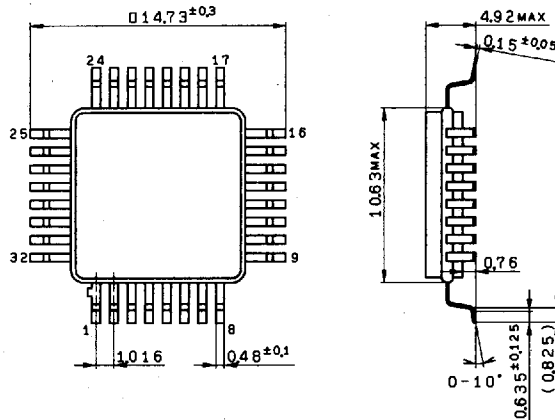
32pin QFP (Metal) 0.2g



SONY NAME	QFP-32M-L02
EIAJ NAME	XQFP032-M-0000-C
JEDEC CODE	

32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



SONY NAME	QFP-32C-L01
EIAJ NAME	XQFP032-G-0000-A
JEDEC CODE	

16pin QFP

