

SONY.**CXB1105Q/Q-Y**

T-52-07

Triple Fan-Out Buffer with Common Enable and Differential Output**Description**

The CXB1105Q is an ultra high speed monolithic ECL IC, which contains three Line Drivers. Each driver has two pairs of differential output pins (Q_n , Q_{nB} , $\overline{Q_n}$, $\overline{Q_{nB}}$).

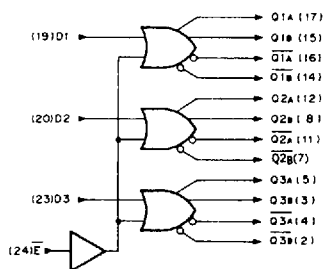
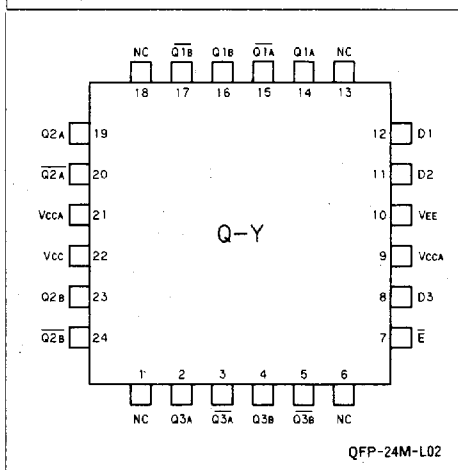
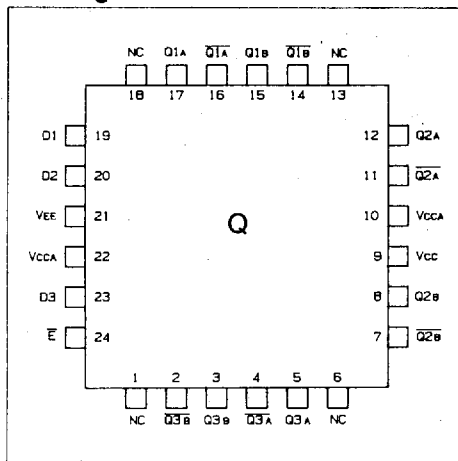
Enable ($\overline{E}$) input enables data (D1-D3) input. With D1-D3 maintained LOW, $\overline{E}$ acts as a fan-out buffer with six differential outputs.

Features

- Typical propagation delay time:
 $T_{pd}=620ps$ (D_n to Q_n , Q_{nB})
- Small time skew: 50ps ($\overline{E}$ to Q_n , Q_{nB})
- Enable input
- Six differential fan-out capability
- 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_n	Data inputs
Q_n , $\overline{Q_n}$, Q_{nB} , $\overline{Q_{nB}}$	Data outputs
$\overline{E}$	Data enable (active LOW)
VCC	Circuit ground
VCCA	Circuit ground for outputs
VEE	Negative power supply

Logic Symbol**Pin Assignment****Truth Table**

Input	Output
$\overline{E}$	D_n Q_n $\overline{Q_n}$
L	L L H
L	H H L
H	X H L

Note: H; HIGH voltage level
L; LOW voltage level
X; Don't care

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CXB1105Q/QY

DC Characteristics

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 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2.0V$, $T_C = 0^\circ C$ to $+85^\circ C$

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}		-164	-120	-84	mA

Note: Other DC characteristics; See pages 3-3 and 3-4.

AC Characteristics

 $V_{EE} = -4.5 \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2.0V$, $T_C = 0^\circ C$ 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}	D _n	Q _{nA} , Q _{nB}		470	620	790	ps		
	T _{PHL}				440	590	750			
	T _{PLH}	$\bar{E}$			500	660	840			
	T _{PHL}				500	630	800			
Gate-to-Gate time skew	T _{SG-G}	$\bar{E}$					50			
Rise time	T _{TLH}	D _n , $\bar{E}$		20% to 80%		250	320			
Fall time	T _{THL}					220	280			

Note: AC test circuit; See page 4-3.

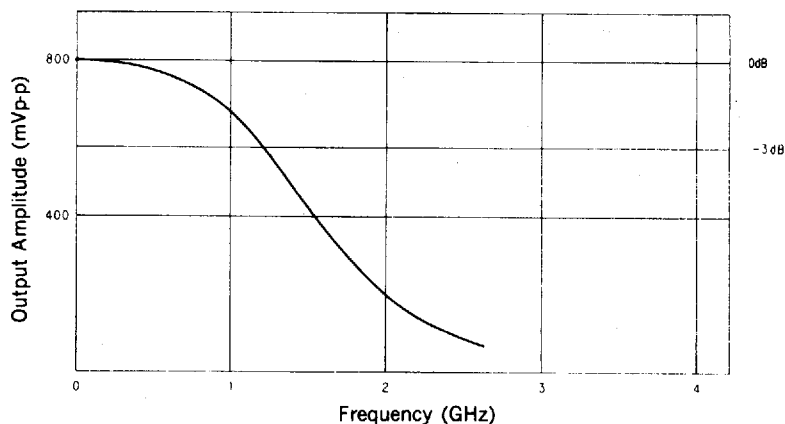


Figure 1. Frequency characteristics

Package Data

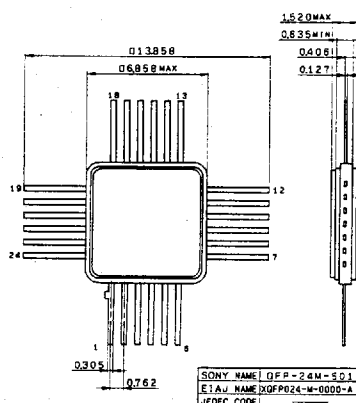
T-90-20

Package Outline

Unit: mm

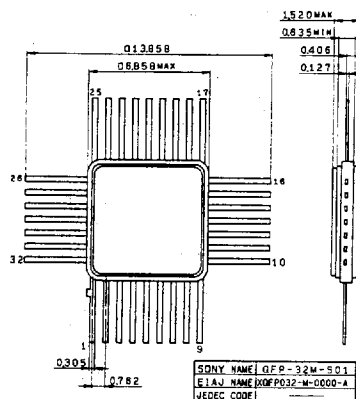
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



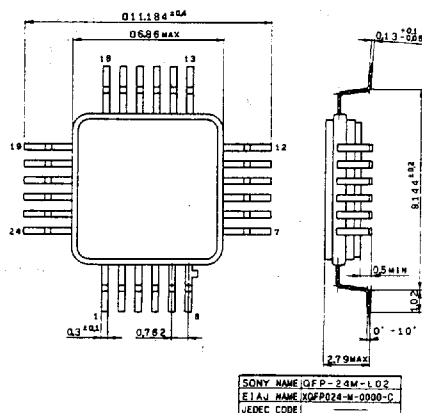
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

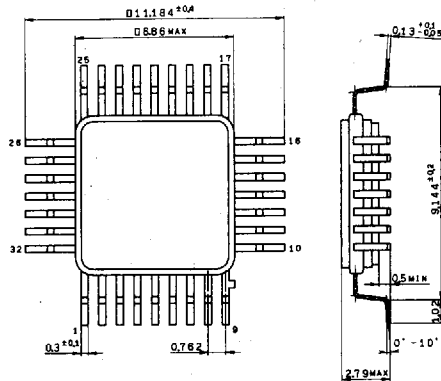
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

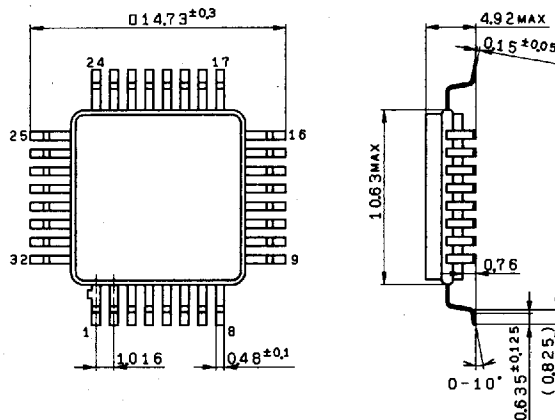
32pin GFP (Metal) 0.2g



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

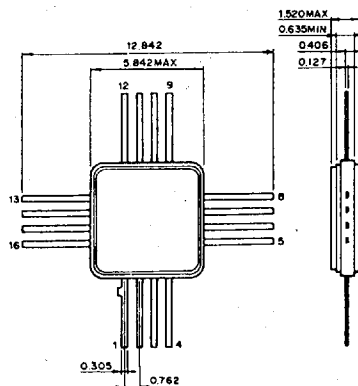
32pin QFP (QFP-32C-L01)

32pin GFP (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

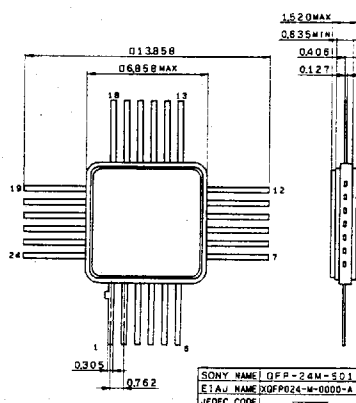
T-90-20

Package Outline

Unit: mm

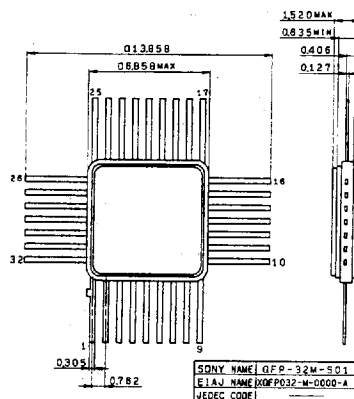
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



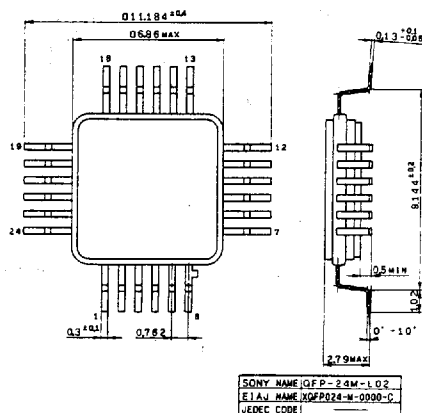
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

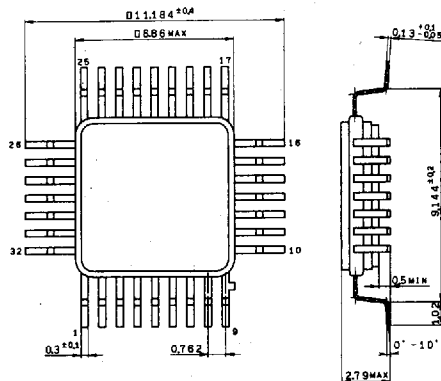
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

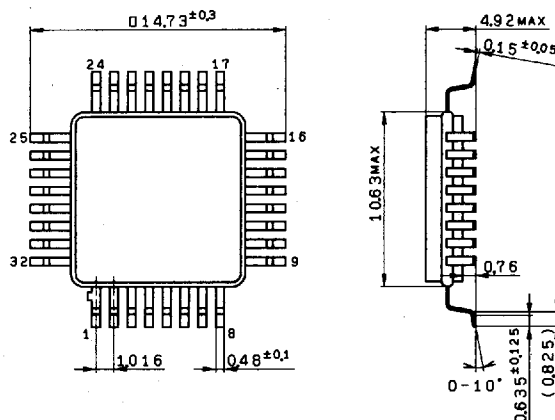
32pin GFP (Metal) 0.2g



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

32pin QFP (QFP-32C-L01)

32pin GFP (Ceramic)



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

16pin QFP

