

**SONY.**

**CXB1101Q/Q-Y**

T-43-22

**Quad 3-input AND/NAND Gate**

**Description**

The CXB1101Q is an ultra high speed monolithic ECL IC, which contains four 3-input AND/NAND gates.

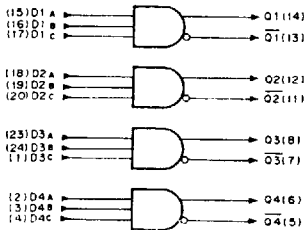
**Features**

- Typical AC characteristics
  - $T_{pd} = 490ps$
  - $T_{TLH} = 230ps$
  - $T_{THL} = 170ps$
- 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

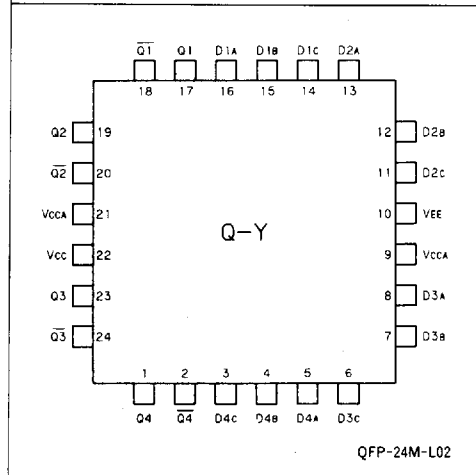
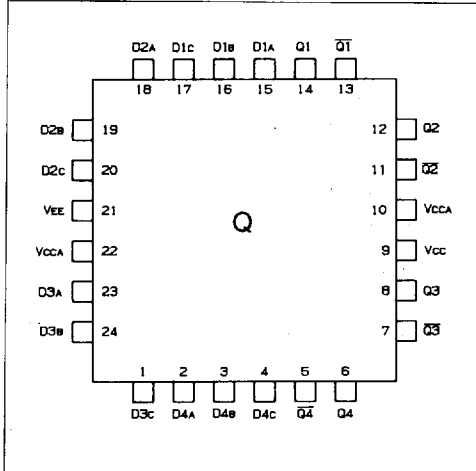
**Pin Names**

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

**Logic Symbol**



**Pin Assignment**



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## DC Characteristics

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

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power supply current	$I_{EE}$		-179	-131	-91	mA

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

## AC Characteristics

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

Item	Symbol	Input	Output	Test Condition	Min.	Typ.	Max.	Unit
Propagation delay time	$T_{PLH}$	Dn	Qn		350	460	580	ps
	$T_{PHL}$				370	490	620	
Rise time	$T_{TLH}$			20% to 80%		230	290	
Fall time	$T_{THL}$					170	220	

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

# Package Data

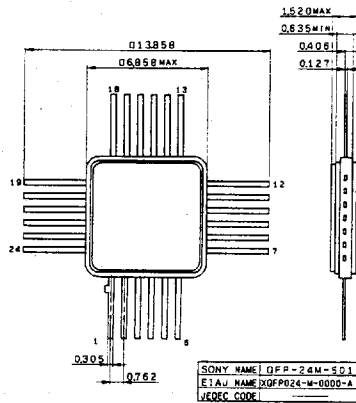
T-90-20

Package Outline

Unit: mm

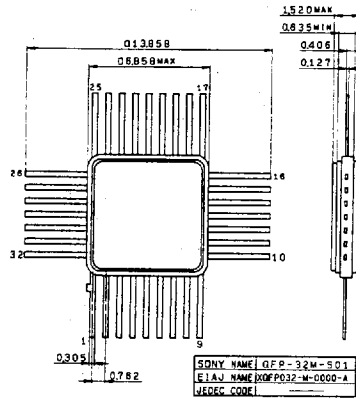
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



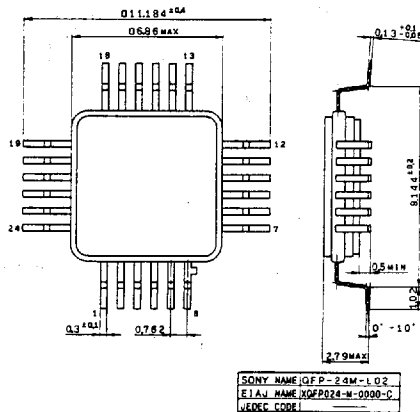
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

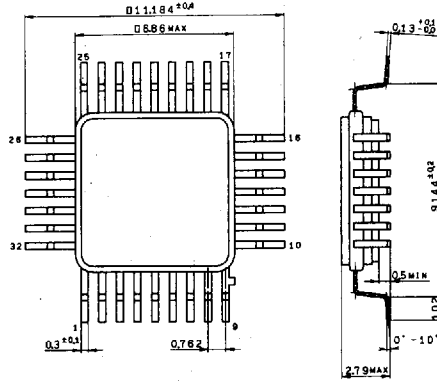
24pin QFP (Metal) 0.3g



T-90-20

32pin QFP (QFP-32M-L02)

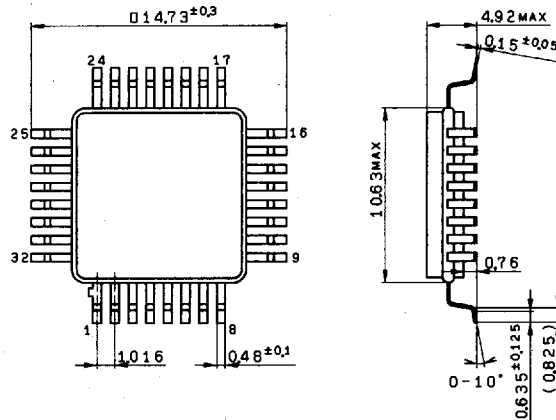
32pin QFP (Metal) 0.2g



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

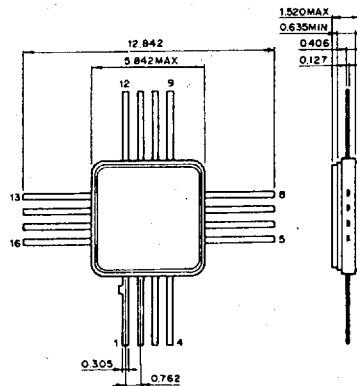
32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



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

16pin QFP



**Package Data**

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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

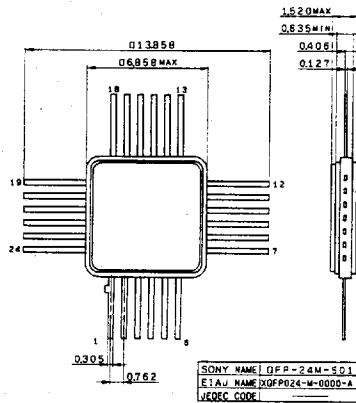
T-90-20

Package Outline

Unit: mm

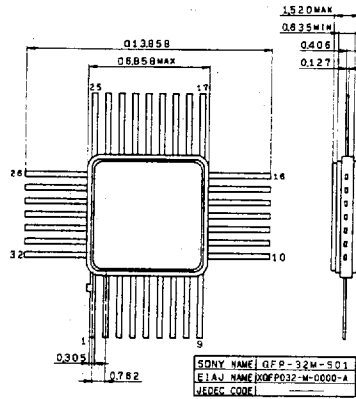
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



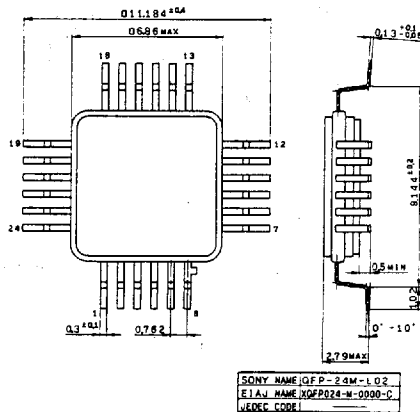
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

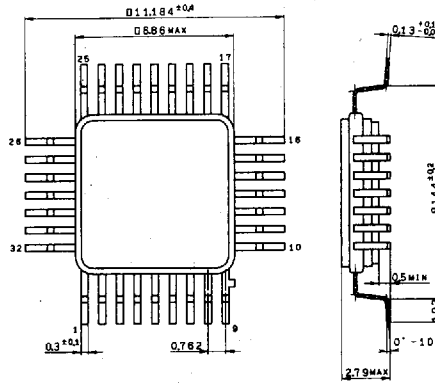
24pin QFP (Metal) 0.3g



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32pin QFP (QFP-32M-L02)

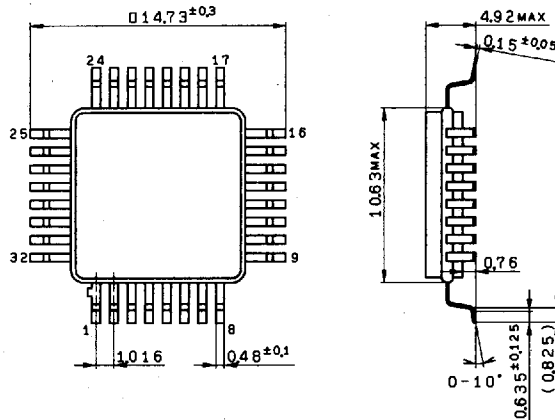
32pin QFP (Metal) 0.2g



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

