

SONY.**CXB1545Q-Y**

Dual 8: 1 Multiplexer with D-F.F.

*T-68-11-51***Description**

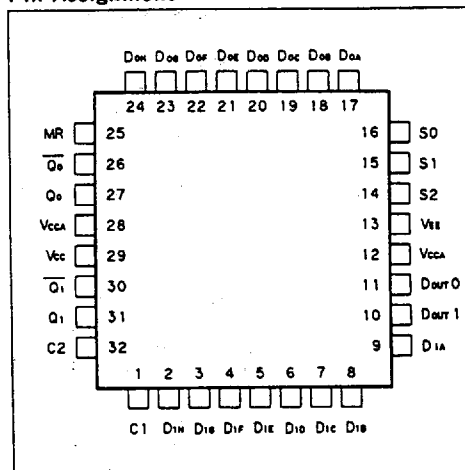
The CXB1545Q-Y is an ultra high speed monolithic ECL IC, which contains two 8: 1 multiplexers followed by D type flip flops. The data select (S₀-S₂) inputs determine which data is enabled. The selected data is transferred to the flip flops output by the positive transition of clocks (C₁, C₂) input. The Master Reset overrides all other control inputs and turns Q outputs to LOW.

Features

- Typical clock rate up to 2.3 GHz
- Differential outputs
- Internal pull down resistors on input pins to maintain logic LOW level with the pins left open
- ECL 100K compatible I/O levels

Pin Names

D _{NA} -D _{NH}	Data inputs
Q _n , Q _n	Data outputs
S _n	Data select inputs
C _n	Clock inputs
DOUT _n	Data sense outputs
MR	Direct Master Reset input
V _{CC}	Circuit ground
V _{CCA}	Circuit ground for outputs
V _{EE}	Negative power supply

Pin Assignment**Truth Table**

Select inputs			Outputs
S ₀	S ₁	S ₂	Q _n
L	L	L	D _{NA}
H	L	L	D _{NB}
L	H	L	D _{NC}
H	H	L	D _{ND}
L	L	H	D _{NE}
H	L	H	D _{NF}
L	H	H	D _{NG}
H	H	H	D _{NH}

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

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CXB1545Q-Y

DC Characteristics

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

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}		-130	-95	-66	mA

AC Characteristics

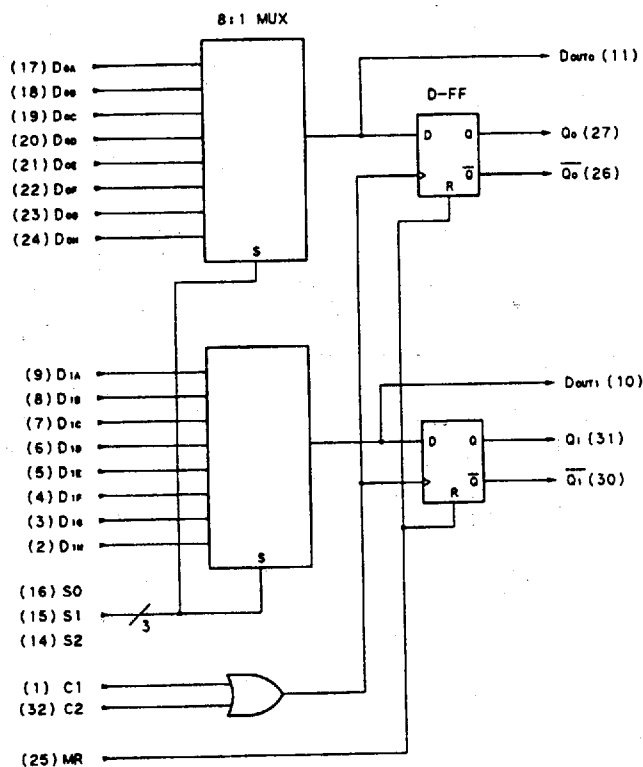
 $V_{EE} = -4.5V \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2.0V$, $T_c = 0^\circ C$ to $+85^\circ C$, $R_T = 50\Omega$ to V_{TT}

Item	Symbol	Input	Output	Test Conditions	Min.	Typ.	Max.	Unit
Propagation delay time	T _{PLH}	Cn	Qn		570	810	1090	ps
	T _{PHL}				590	840	1130	
	T _{PLH}	MR			710	1000	1340	
	T _{PHL}				720	1020	1370	
	T _{PLH}	D	Doutn		670	950	1270	
	T _{PHL}				660	930	1250	
	T _{PLH}	Sn			850	1190	1590	
	T _{PHL}				840	1170	1560	
Gate-to-Gate skew	T _{SG-G}	Cn	Qn			80	180	
Set up time	T _s	D, Cn			330			
		Sn, Cn			520			
Hold time	T _h	Cn, D			-80			
		Cn, Sn			-270			
Release time	T _R	MR, Cn			380			
Min. Pulse width	T _{PW}	MR			540			
Max. Clock frequency	f _{MAX}	Cn		20% to 80%	1.6	2.3		GHz
Rise time	T _{TLH}					300	430	ps
Fall time	T _{THL}					260	380	

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Block Diagram

T-68-11-51



Package Data

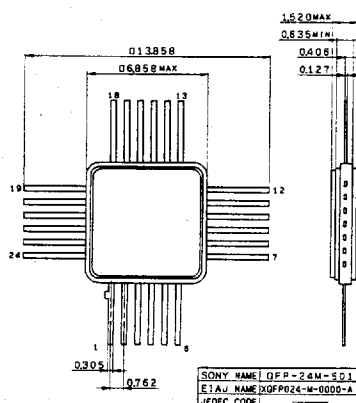
T-90-20

Package Outline

Unit: mm

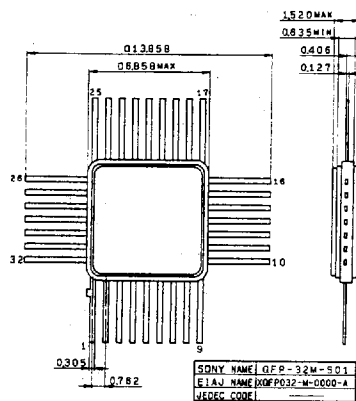
24pin QFP (QFP-24M-S01)

24pin QFP (Metal) 0.3g



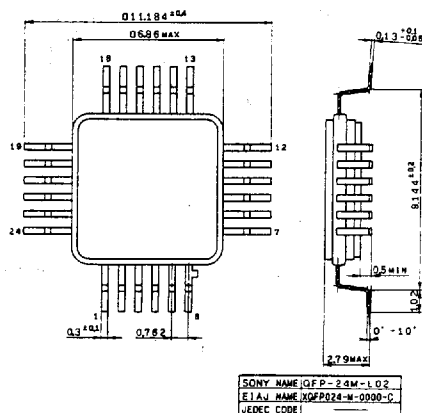
32pin QFP (QFP-32M-S01)

32pin QFP (Metal) 0.2g



24pin QFP (QFP-24M-L02)

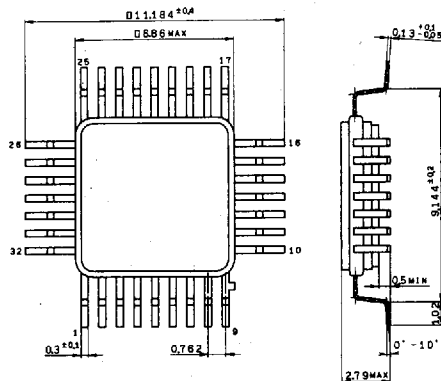
24pin QFP (Metal) 0.3g



T-90-20

32pin QFP (QFP-32M-L02)

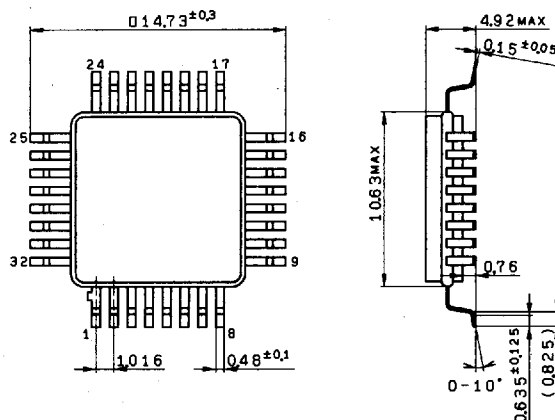
32pin QFP (Metal) 0.2g



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

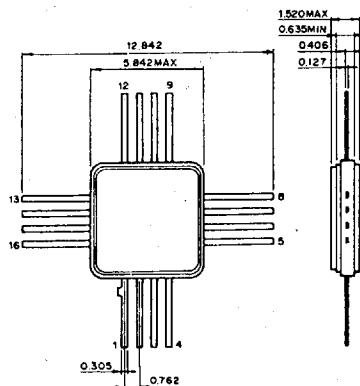
32pin QFP (QFP-32C-L01)

32pin QFP (Ceramic)



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

16pin QFP



Package Data

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

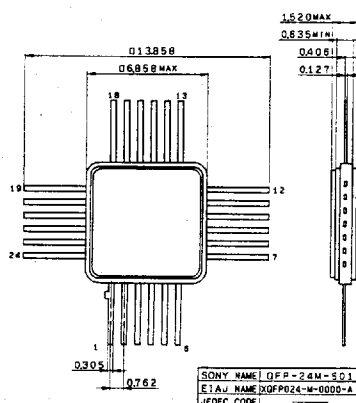
T-90-20

Package Outline

Unit: mm

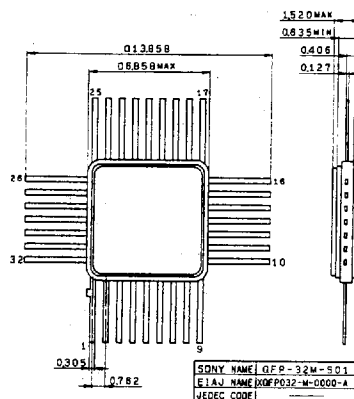
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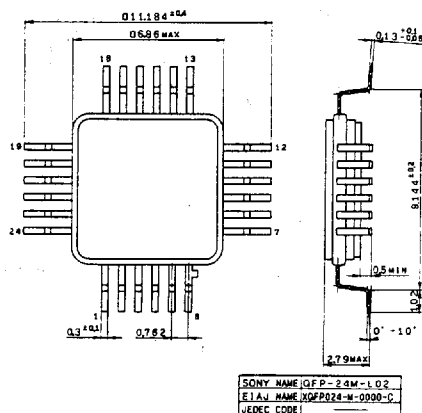
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24pin QFP (QFP-24M-L02)

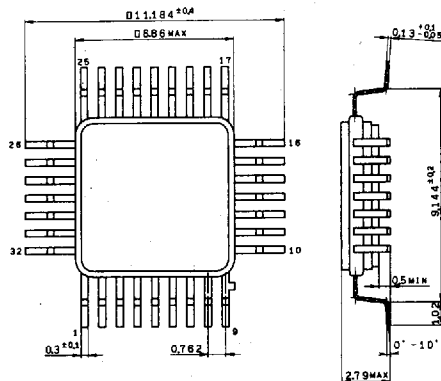
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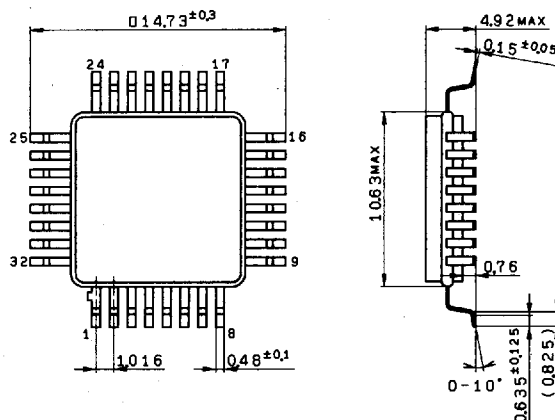
32pin QFP (Metal) 0.2g



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

