

128K X 8 BIT LOW POWER CMOS SRAM

REVISION HISTORY

Rev. 1.10

Revision	<u>Description</u>	Issue Date
Rev. 1.0	Initial Issue	Jul.25.2004
Rev. 1.1	Revised sym. b of 32 pin 450mil SOP package outline dimension in page 8	Jan.17.2007
Rev. 1.2	Added SL(C-grade) Spec.	Jun.14.2007
Rev. 1.3	Revised I _{SB} /I _{DR(MAX.)}	Aug.20.2008
	Added SL(E/I-grade) Spec.	
	Deleted L Spec.	
Rev. 1.4	Revised I _{SB1} /I _{DR(MAX.)}	Mar.30.2009
	Added I_{SB1}/I_{DR} values when $T_A = 25^{\circ}C$ and $T_A = 40^{\circ}C$	
	Revised FEATURES & ORDERING INFORMATION Lead free and	
	green package available to Green package available	
	Added packing type in ORDERING INFORMATION	
	Deleted Tsolder in ABSOLUTE MAXIMUN RATINGS	
Rev. 1.5	Revised V _{DR}	Sep.11.2009
Rev. 1.6	Revised PACKAGE OUTLINE DIMENSION in page 10/11/12/13	May.7.2010
Rev. 1.7	Revised ORDERING INFORMATION in page 14	Aug.31.2010
Rev. 1.8	Revised V _{IL(max)} from 0.6V to 0.8V	May. 8.2014
Rev. 1.9	Correct ORDERING INFORMATION Typo.	May.20.2016
Rev. 1.10	Deleted WRITE CYCLE Notes :	Jun.28.2016
	1. WE#, CE# must be high or CE2 must be low during all address transitions in page 7	

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FEATURES

Fast access time: 35/55/70nsLow power consumption:

Operating current: 24/17/15mA (TYP.)

Standby current: 2µA@5V(TYP.) LL/SL version

0.8μA@3V(TYP.) SL version

■ Single 5V power supply

■ All inputs and outputs TTL compatible

■ Fully static operation

■ Tri-state output

■ Data retention voltage : 1.5V (MIN.)

■ Green package available

■ Package : 32-pin 450 mil SOP

32-pin 600 mil PDIP

32-pin 8mm x 20mm TSOP I 32-pin 8mm x 13.4mm sTSOP 36-ball 6mm x 8mm TFBGA

GENERAL DESCRIPTION

The LY621024 is a 1,048,576-bit low power CMOS static random access memory organized as 131,072 words by 8 bits. It is fabricated using very high performance, high reliability CMOS technology. Its standby current is stable within the range of operating temperature.

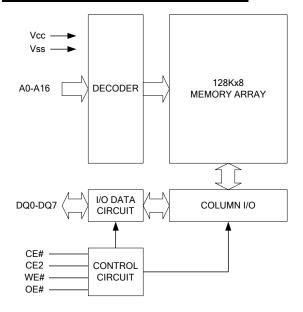
The LY621024 is well designed for very low power system applications, and particularly well suited for battery back-up nonvolatile memory application.

The LY621024 operates from a single power supply of 5V and all inputs and outputs are fully TTL compatible

PRODUCT FAMILY

Product	Operating	Vac Dange	Van Danna Connel		Power Dissipation				
Family	Temperature	Vcc Range	Speed	Standby(Is _{B1} ,TYP.)		Operating(Icc,TYP.)			
LY621024(LL)	0 ~ 70℃	4.5 ~ 5.5V	35/55/70ns	-	2µA@5V	24/17/15mA			
LY621024(LLE)	-20 ~ 80°C	4.5 ~ 5.5V	35/55/70ns	-	2µA@5V	24/17/15mA			
LY621024(LLI)	-40 ~ 85°C	4.5 ~ 5.5V	35/55/70ns	-	2µA@5V	24/17/15mA			
LY621024(SL)	0 ~ 70℃	4.5 ~ 5.5V	35/55/70ns	0.8µA@3V	2µA@5V	24/17/15mA			
LY621024(SLE)	-20 ~ 80°C	4.5 ~ 5.5V	35/55/70ns	0.8µA@3V	2µA@5V	24/17/15mA			
LY621024(SLI)	-40 ~ 85°C	4.5 ~ 5.5V	35/55/70ns	0.8µA@3V	2µA@5V	24/17/15mA			

FUNCTIONAL BLOCK DIAGRAM



PIN DESCRIPTION

SYMBOL	DESCRIPTION
A0 - A16	Address Inputs
DQ0 – DQ7	Data Inputs/Outputs
CE#, CE2	Chip Enable Inputs
WE#	Write Enable Input
OE#	Output Enable Input
Vcc	Power Supply
Vss	Ground
NC	No Connection

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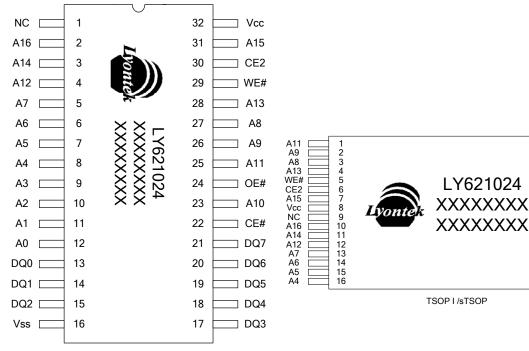
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OE# A10 CE# DQ7 DQ6

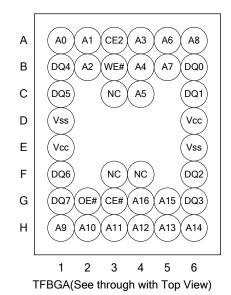
DQ5 DQ4 DQ3 Vss DQ2 DQ1 DQ0 A0 A1 A2 A3



PIN CONFIGURATION







LY621024

XXXXXXXXX

TFBGA(Top View)



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ABSOLUTE MAXIMUN RATINGS*

PARAMETER	SYMBOL	RATING	UNIT
Voltage on Vcc relative to Vss	V _{T1}	-0.5 to 6.5	V
Voltage on any other pin relative to Vss	V _{T2}	-0.5 to Vcc+0.5	V
		0 to 70(C grade)	
Operating Temperature	TA	-20 to 80(E grade)	$^{\circ}\! \mathbb{C}$
		-40 to 85(I grade)	
Storage Temperature	Тѕтс	-65 to 150	$^{\circ}$
Power Dissipation	Po	1	W
DC Output Current	Іоит	50	mA

^{*}Stresses greater than those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to the absolute maximum rating conditions for extended period may affect device reliability.

TRUTH TABLE

MODE	CE#	CE2	OE#	WE#	I/O OPERATION	SUPPLY CURRENT	
Standby	Н	Х	Х	Х	High-Z	I _{SB1}	
Startuby	Х	L	Х	Х	High-Z	I _{SB1}	
Output Disable	L	Н	Н	Н	High-Z	Icc,Icc1	
Read	L	Н	L	Н	Dout	Icc,Icc1	
Write	L	Н	Х	L	DIN	Icc,Icc1	

Note: $H = V_{IH}$, $L = V_{IL}$, X = Don't care.



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DC ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION			MIN.	TYP. ^{^4}	MAX.	UNIT
Supply Voltage	Vcc				4.5	5.0	5.5	V
Input High Voltage	V _{IH} ¹				2.4	-	Vcc+0.3	V
Input Low Voltage	V _{IL} ²				- 0.2	-	0.8	V
Input Leakage Current	ILI	$V_{CC} \ge V_{IN} \ge V_{SS}$			- 1	-	1	μA
Output Leakage Current	ILO	$V_{CC} \ge V_{OUT} \ge V_{SS}$, Output Disabled			- 1	-	1	μA
Output High Voltage	Vон	Iон = -1mA			2.4	-	-	V
Output Low Voltage	Vol	I _{OL} = 2mA			-	-	0.4	V
		Cycle time = Min.	,	- 35	-	24	80	mA
	Icc	CE# = Vı∟ and CE2 = Vıн , Iı⁄o = 0mA		- 55	-	17	60	mA
Average Operating		Other pins at V _{IL} or V _{IH} - 70			-	15	50	mA
Power supply Current	Icc1	Cycle time = 1µs CE# = 0.2V and CE2≧ I _{VO} = 0mA Other pins at 0.2V or V	·	-	2	10	mA	
			LL		-	2	15	μA
		05"> 1/ 001/	LLE/L	LI	-	2	30	μA
Standby Power	1	$CE# \ge V_{CC}-0.2V$ or $CE2 \le 0.2V$	SL ^{*5} SLE ^{*5}	25 ℃	-	0.8	2	μA
Supply Current	I _{SB1}	Others at 0.2V or Vcc - 0.2V	SLI ^{*5}	40°C	-	1	2	μA
		V CC U.Z V	SL		-	2	7	μA
Notoo			SLE/S	LI	-	2	10	μA

- 1. $V_{IH}(max) = V_{CC} + 3.0V$ for pulse width less than 10ns.
- 2. VIL(min) = Vss 3.0V for pulse width less than 10ns.
- 3. Over/Undershoot specifications are characterized, not 100% tested.
- 4. Typical values are included for reference only and are not guaranteed or tested. Typical values are measured at Vcc = Vcc(TYP.) and TA = 25°C
- 5. This parameter is measured at Vcc = 3.0V

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CAPACITANCE (TA = 25° C, f = 1.0MHz)

PARAMETER	SYMBOL	MIN.	MAX	UNIT
Input Capacitance	Cin	-	6	pF
Input/Output Capacitance	C _{I/O}	-	8	pF

Note: These parameters are guaranteed by device characterization, but not production tested.

AC TEST CONDITIONS

Input Pulse Levels	0.2V to Vcc - 0.2V
Input Rise and Fall Times	3ns
Input and Output Timing Reference Levels	1.5V
Output Load	$C_L = 50pF + 1TTL$, $I_{OH}/I_{OL} = -1mA/2mA$

AC ELECTRICAL CHARACTERISTICS

(1) READ CYCLE

PARAMETER	SYM.	SYM. LY621024-35		LY621	024-55	LY621024-70		UNIT
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
Read Cycle Time	trc	35	-	55	-	70	-	ns
Address Access Time	taa	-	35	-	55	-	70	ns
Chip Enable Access Time	tace	-	35	-	55	-	70	ns
Output Enable Access Time	toe	-	25	-	30	-	35	ns
Chip Enable to Output in Low-Z	tcLz*	10	-	10	-	10	-	ns
Output Enable to Output in Low-Z	tolz*	5	-	5	-	5	-	ns
Chip Disable to Output in High-Z	tcHz*	-	15	-	20	-	25	ns
Output Disable to Output in High-Z	tonz*	-	15	-	20	-	25	ns
Output Hold from Address Change	tон	10	-	10	-	10	-	ns

(2) WRITE CYCLE

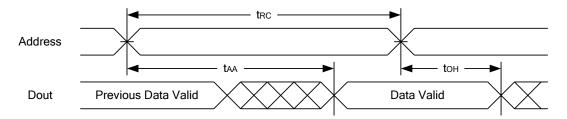
PARAMETER	SYM.	LY621024-35		LY621024-55		LY621024-70		UNIT
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
Write Cycle Time	twc	35	-	55	-	70	-	ns
Address Valid to End of Write	taw	30	-	50	-	60	-	ns
Chip Enable to End of Write	tcw	30	-	50	-	60	-	ns
Address Set-up Time	tas	0	-	0	-	0	-	ns
Write Pulse Width	twp	25	-	45	-	55	-	ns
Write Recovery Time	twr	0	-	0	-	0	-	ns
Data to Write Time Overlap	tow	20	-	25	-	30	-	ns
Data Hold from End of Write Time	tон	0	-	0	-	0	-	ns
Output Active from End of Write	tow*	5	-	5	-	5	-	ns
Write to Output in High-Z	twnz*	-	15	-	20	-	25	ns

^{*}These parameters are guaranteed by device characterization, but not production tested.

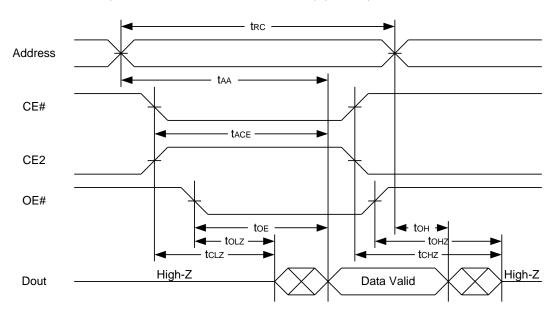


TIMING WAVEFORMS

READ CYCLE 1 (Address Controlled) (1,2)



READ CYCLE 2 (CE# and CE2 and OE# Controlled) (1,3,4,5)



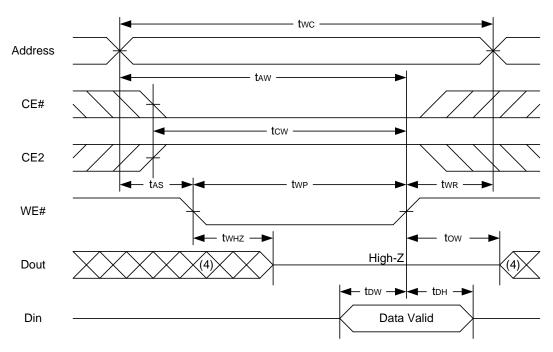
Notes:

- 1.WE# is high for read cycle.
- 2.Device is continuously selected OE# = low, CE# = low, CE2 = high.
- 3. Address must be valid prior to or coincident with CE# = low, CE2 = high; otherwise tax is the limiting parameter.
- 4.tclz, tolz, tchz and tohz are specified with CL = 5pF. Transition is measured ±500mV from steady state.
- 5.At any given temperature and voltage condition, tcHz is less than tcLz, toHz is less than toLz.

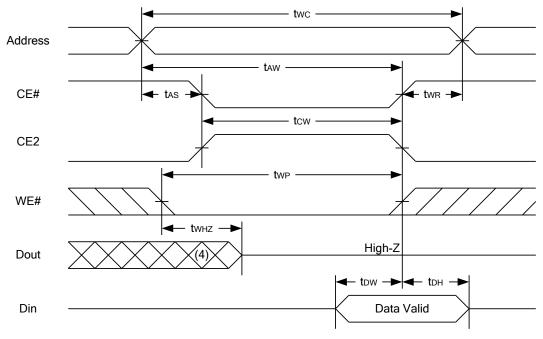
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WRITE CYCLE 1 (WE# Controlled) (1,2,4,5)



WRITE CYCLE 2 (CE# and CE2 Controlled) (1,4,5)



Notes

- 1.A write occurs during the overlap of a low CE#, high CE2, low WE#.
- 2.During a WE#controlled write cycle with OE# low, twp must be greater than twHz + tpw to allow the drivers to turn off and data to be placed on the bus.
- 3. During this period, I/O pins are in the output state, and input signals must not be applied.
- 4.If the CE#low transition and CE2 high transition occurs simultaneously with or after WE# low transition, the outputs remain in a high impedance state.
- 5.tow and twHz are specified with CL = 5pF. Transition is measured ±500mV from steady state.

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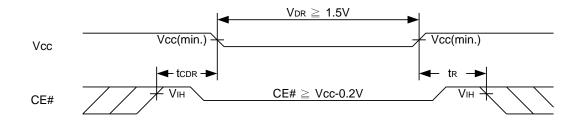
DATA RETENTION CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION			MIN.	TYP.	MAX.	UNIT
Vcc for Data Retention	Vdr	CE# \geq Vcc - 0.2V or CE2 \leq 0.	2V		1.5	-	5.5	V
			LL		-	0.5	12	μA
Data Retention Current		\/oo - 1 5\/	LLE/	'LLI	-	0.5	30	μA
	I _{DR}	V_{CC} = 1.5V $CE\# \ge V_{CC}$ - 0.2V or $CE2 \le 0.2V$ Other pins at 0.2V or V_{CC} -0.2V	SL SLE	25 ℃	-	0.4	2	μA
			_	40℃	-	0.5	2	μA
		Other pins at 0.2 v or vec 0.2 v	SL		-	0.4	5	μA
				/SLI	-	0.4	8	μA
Chip Disable to Data Retention Time	tcdr	See Data Retention Waveforms (below)			0	-	-	ns
Recovery Time	tr				trc∗	-	-	ns

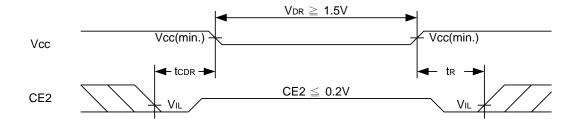
tRC* = Read Cycle Time

DATA RETENTION WAVEFORM

Low Vcc Data Retention Waveform (1) (CE# controlled)



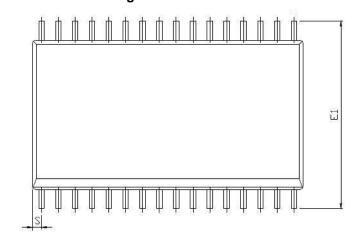
Low Vcc Data Retention Waveform (2) (CE2 controlled)

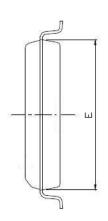


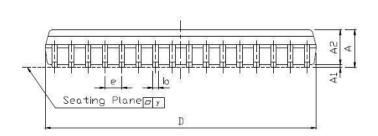


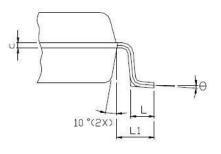
PACKAGE OUTLINE DIMENSION

32 pin 450 mil SOP Package Outline Dimension





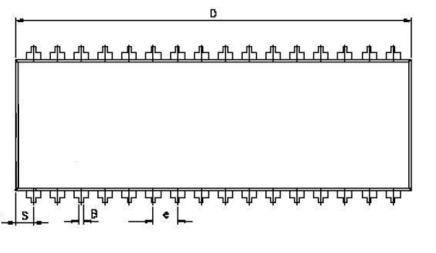




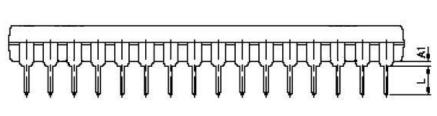
SYM. UNIT	INCH.(BASE)	MM(REF)
А	0.118 (MAX)	2.997 (MAX)
A1	0.004(MIN)	0.102(MIN)
A2	0.111(MAX)	2.82(MAX)
b	0.016 +0.004	0.406 +0.102
b	-0.002	-0.051
С	0.008(TYP)	0.203(TYP)
D	0.817(MAX)	20.75(MAX)
Е	0.445 ±0.005	11.303 ±0.127
E1	0.555 ±0.012	14.097 ±0.305
е	0.050(TYP)	1.270(TYP)
L	0.0347 ±0.008	0.881 ±0.203
L1	0.055 ±0.008	1.397 ±0.203
S	0.026(MAX)	0.660 (MAX)
у	0.004(MAX)	0.101(MAX)
Θ	0° -10°	0° -10°

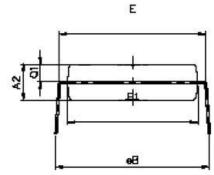


32 pin 600 mil PDIP Package Outline Dimension



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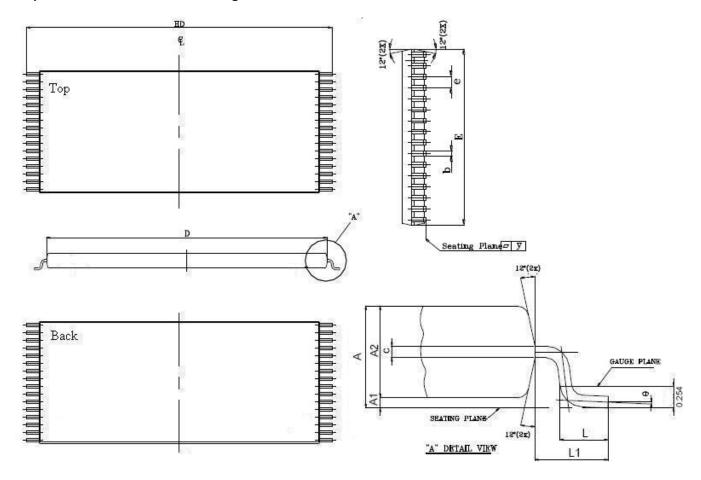


SYM. UNIT	INCH(BASE)	MM(REF)		
A1	0.015(MIN)	0.381(MIN)		
A2	0.155±0.005	3.937±0.127		
В	0.018±0.005	0.457±0.127		
D	1.650±0.01	41.910±0.254		
E	0.600±0.010	15.240±0.254		
E1	0.545±0.005	13.843±0.127		
е	0.100(TYP)	2.540(TYP)		
eВ	0.650±0.020	16.510±0.508.		
Ĺ	0.158±0.043	4.013 [±] 1.092		
S	0.075±0.010	1.905±0.254		
Q1 0.070±0.005		1.778±0.127		

Note: D/E1/S dimension do not include mold flash.



32 pin 8mm x 20mm TSOP I Package Outline Dimension

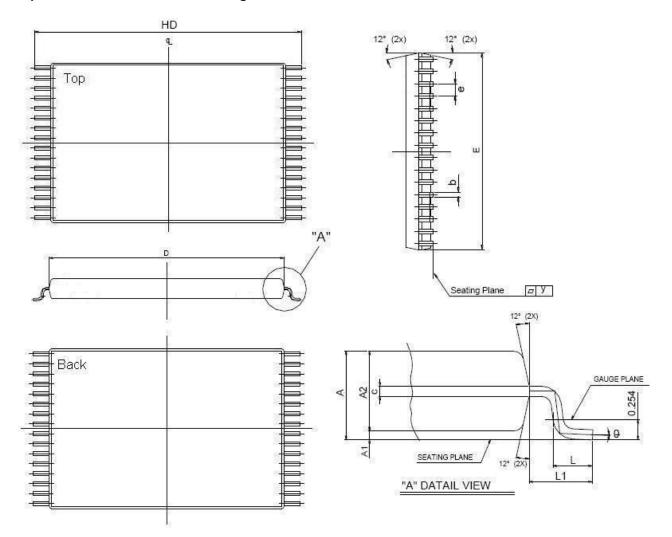


SYM. UNIT	INCH(BASE)	MM(REF)
А	0.047 (MAX)	1.20 (MAX)
A1	0.004 ±0.002	0.10 ±0.05
A2	0.039 ±0.002	1.00 ±0.05
b	0.009 ±0.002	0.22 ±0.05
С	0.006 ±0.002	0.155 ±0.055
D	0.724 ±0.008	18.40 ±0.20
Е	0.315 ±0.008	8.00 ±0.20
е	0.020 (TYP)	0.50 (TYP)
HD	0.787 ±0.008	20.00 ±0.20
L	0.024 ±0.004	0.60 ±0.10
L1	0.0315 ±0.004	0.08 ±0.10
у	0.003 (MAX)	0.08 (MAX)
Θ	0°~5°	0°~5°



32 pin 8mm x 13.4mm sTSOP Package Outline Dimension

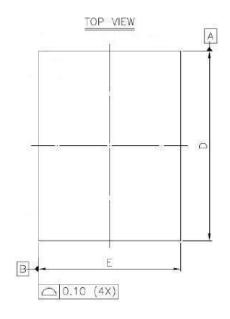
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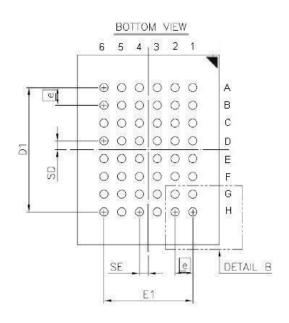


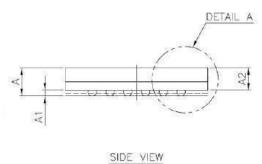
UNIT SYM.	INCH(BASE)	MM(REF)
Α	0.049 (MAX)	1.25 (MAX)
A1	0.004 ±0.002	0.10 ±0.05
A2	0.039 ±0.002	1.00 ±0.05
b	0.009 ±0.002	0.22 ±0.05
С	0.006 ±0.002	0.155 ±0.055
D	0.465 ±0.008	11.80 ±0.20
Ш	0.315 ±0.008	8.00 ±0.20
е	0.020 (TYP)	0.50 (TYP)
HD	0.528±0.008	13.40 ±0.20.
L	0.02 ±0.008	0.50 ±0.20
L1	0.031 ±0.005	0.8 ±0.125
у	0.003 (MAX)	0.076 (MAX)
Θ	0°~5°	0°~5°

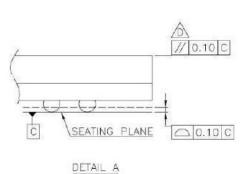


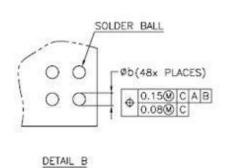
36 ball 6mm × 8mm TFBGA Package Outline Dimension











	00.44	DIMENSION (mm)			DIMENSION (inch)		
	SYM.	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
	Α	_	_	1.20	_	_	0.047
	A1	0.20	0.25	0.30	0.008	0.010	0.012
	A2		_	0.94	_	_	0.037
	ь	0.30	0.35	0.40	0.012	0.014	0.016
B	D	7.95	8.00	8.05	0.313	0.315	0.317
	D1	5	.25 BS0		0.207 BSC		
A	E	5.95	6.00	6.05	0.234	0.236	0.238
	E1	3	.75 BS0		0.148 BSC		
	SE	0.375 TYP			0.015 TYP		
	SD	0.375 TYP			0.015 TYP		
	e	0.75 BSC			0.030 BSC		

1. CONTROLLING DIMENSION: MILLIMETER. 2. REFERENCE DOCUMENT : JEDEC MO-207.

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128K X 8 BIT LOW POWER CMOS SRAM

ORDERING INFORMATION

Rev. 1.10

Package Type	Access Time	Power Type	Temperature	Packing	Lyontek Item No.
	(Speed)(ns)		Range(℃)	Туре	
32 Pin(450mil)	35	Special Ultra		Tube	LY621024SL-35SL
SOP		Low Power		Tape Reel	LY621024SL-35SLT
			-20℃~80℃	Tube	LY621024SL-35SLE
				Tape Reel	LY621024SL-35SLET
			- 40 °C ~ 85 °C	Tube	LY621024SL-35SLI
				Tape Reel	LY621024SL-35SLIT
		Ultra Low	0℃~70℃	Tube	LY621024SL-35LL
		Power		Tape Reel	LY621024SL-35LLT
			-20℃~80℃	Tube	LY621024SL-35LLE
				Tape Reel	LY621024SL-35LLET
			-40°C~85°C	Tube	LY621024SL-35LLI
				Tape Reel	LY621024SL-35LLIT
	55	Special Ultra	0℃~70℃	Tube	LY621024SL-55SL
		Low Power		Tape Reel	LY621024SL-55SLT
			-20℃~80℃	Tube	LY621024SL-55SLE
				Tape Reel	LY621024SL-55SLET
			-40℃~85℃	Tube	LY621024SL-55SLI
				Tape Reel	LY621024SL-55SLIT
		Ultra Low Power	0℃~70℃	Tube	LY621024SL-55LL
				Tape Reel	LY621024SL-55LLT
			-20℃~80℃	Tube	LY621024SL-55LLE
				Tape Reel	LY621024SL-55LLET
			-40℃~85℃	Tube	LY621024SL-55LLI
				Tape Reel	LY621024SL-55LLIT
	70	Special Ultra Low Power	0℃~70℃	Tube	LY621024SL-70SL
				Tape Reel	LY621024SL-70SLT
			-20℃~80℃	Tube	LY621024SL-70SLE
				Tape Reel	LY621024SL-70SLET
			-40℃~85℃	Tube	LY621024SL-70SLI
				Tape Reel	LY621024SL-70SLIT
		Ultra Low	0°C~70°C	Tube	LY621024SL-70LL
		Power		Tape Reel	LY621024SL-70LLT
			-20℃~80℃	Tube	LY621024SL-70LLE
				Tape Reel	LY621024SL-70LLET
			1400 000	Tube	LY621024SL-70LLI
				Tape Reel	LY621024SL-70LLIT



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ORDERING INFORMATION

Package Type	Access Time	Power Type	Temperature	Packing	Lyontek Item No.
	(Speed)(ns)		Range(℃)	Туре	
32 Pin(600mil)	35	Special Ultra	0°C~70°C	Tube	LY621024PL-35SL
PDIP		Low Power	-20°C~80°C	Tube	LY621024PL-35SLE
			-40℃~85℃	Tube	LY621024PL-35SLI
		Ultra Low	0°C~70°C	Tube	LY621024PL-35LL
		Power	-20℃~80℃	Tube	LY621024PL-35LLE
			-40°C~85°C	Tube	LY621024PL-35LLI
	55	Special Ultra Low Power	0°C~70°C	Tube	LY621024PL-55SL
			-20°C~80°C	Tube	LY621024PL-55SLE
			-40°C~85°C	Tube	LY621024PL-55SLI
		Ultra Low Power	0°C~70°C	Tube	LY621024PL-55LL
			-20℃~80℃	Tube	LY621024PL-55LLE
			-40℃~85℃	Tube	LY621024PL-55LLI
	70	Special Ultra Low Power	0°C~70°C	Tube	LY621024PL-70SL
			-20℃~80℃	Tube	LY621024PL-70SLE
			-40℃~85℃	Tube	LY621024PL-70SLI
		Ultra Low	0°C~70°C	Tube	LY621024PL-70LL
		Power	-20℃~80℃	Tube	LY621024PL-70LLE
			-40℃~85℃	Tube	LY621024PL-70LLI



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Package Type	Access Time	Power Type	Temperature	Packing	Lyontek Item No.
	(Speed)(ns)		Range(℃)	Type	
32 Pin	35	Special Ultra	0℃~70℃	Tray	LY621024LL-35SL
(8mmx20mm) TSOP I		Low Power		Tape Reel	LY621024LL-35SLT
1001 1			-20℃~80℃	Tray	LY621024LL-35SLE
				Tape Reel	LY621024LL-35SLET
			-40°C~85°C	Tray	LY621024LL-35SLI
				Tape Reel	LY621024LL-35SLIT
		Ultra Low	0℃~70℃	Tray	LY621024LL-35LL
		Power		Tape Reel	LY621024LL-35LLT
			-20℃~80℃	Tray	LY621024LL-35LLE
				Tape Reel	LY621024LL-35LLET
			-40℃~85℃	Tray	LY621024LL-35LLI
				Tape Reel	LY621024LL-35LLIT
	55	Special Ultra	0℃~70℃	Tray	LY621024LL-55SL
		Low Power		Tape Reel	LY621024LL-55SLT
			-20℃~80℃	Tray	LY621024LL-55SLE
				Tape Reel	LY621024LL-55SLET
			-40℃~85℃	Tray	LY621024LL-55SLI
				Tape Reel	LY621024LL-55SLIT
		Ultra Low Power	0℃~70℃	Tray	LY621024LL-55LL
				Tape Reel	LY621024LL-55LLT
			-20℃~80℃	Tray	LY621024LL-55LLE
				Tape Reel	LY621024LL-55LLET
			-40℃~85℃	Tray	LY621024LL-55LLI
				Tape Reel	LY621024LL-55LLIT
	70	Special Ultra Low Power	0℃~70℃	Tray	LY621024LL-70SL
				Tape Reel	LY621024LL-70SLT
			-20℃~80℃	Tray	LY621024LL-70SLE
				Tape Reel	LY621024LL-70SLET
			-40℃~85℃	Tray	LY621024LL-70SLI
				Tape Reel	LY621024LL-70SLIT
		Ultra Low	0℃~70℃	Tray	LY621024LL-70LL
		Power		Tape Reel	LY621024LL-70LLT
			-20℃~80℃	Tray	LY621024LL-70LLE
				Tape Reel	LY621024LL-70LLET
			-40°C ~85°C	Tray	LY621024LL-70LLI
				Tape Reel	LY621024LL-70LLIT



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Package Type	Access Time	Power Type	Temperature	Packing	Lyontek Item No.
	(Speed)(ns)		Range(℃)	Туре	
32 Pin (8mmx13.4mm) sTSOP	35		0 ℃~70℃	Tray	LY621024RL-35SL
		Low Power		Tape Reel	LY621024RL-35SLT
31301			-20℃~80℃	Tray	LY621024RL-35SLE
				Tape Reel	LY621024RL-35SLET
			-40°C~85°C	Tray	LY621024RL-35SLI
				Tape Reel	LY621024RL-35SLIT
		Ultra Low	0 ℃~70℃	Tray	LY621024RL-35LL
		Power		Tape Reel	LY621024RL-35LLT
			-20℃~80℃	Tray	LY621024RL-35LLE
				Tape Reel	LY621024RL-35LLET
			-40℃~85℃	Tray	LY621024RL-35LLI
				Tape Reel	LY621024RL-35LLIT
	55	Special Ultra	0℃~70℃	Tray	LY621024RL-55SL
		Low Power		Tape Reel	LY621024RL-55SLT
			-20℃~80℃	Tray	LY621024RL-55SLE
				Tape Reel	LY621024RL-55SLET
			-40℃~85℃	Tray	LY621024RL-55SLI
				Tape Reel	LY621024RL-55SLIT
		Ultra Low Power	0℃~70℃	Tray	LY621024RL-55LL
				Tape Reel	LY621024RL-55LLT
			-20℃~80℃	Tray	LY621024RL-55LLE
				Tape Reel	LY621024RL-55LLET
			-40℃~85℃	Tray	LY621024RL-55LLI
				Tape Reel	LY621024RL-55LLIT
	70	Special Ultra	0℃~70℃	Tray	LY621024RL-70SL
		Low Power		Tape Reel	LY621024RL-70SLT
			-20℃~80℃	Tray	LY621024RL-70SLE
				Tape Reel	LY621024RL-70SLET
			-40℃~85℃	Tray	LY621024RL-70SLI
				Tape Reel	LY621024RL-70SLIT
		Ultra Low	0℃~70℃	Tray	LY621024RL-70LL
		Power		Tape Reel	LY621024RL-70LLT
			-20℃~80℃	Tray	LY621024RL-70LLE
				Tape Reel	LY621024RL-70LLET
			-40℃~85℃	Tray	LY621024RL-70LLI
				Tape Reel	LY621024RL-70LLIT



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Package Type	Access Time	Power Type	Temperature	Packing	Lyontek Item No.
	(Speed)(ns)		Range(℃)	Туре	
36 Ball (6mmx8mm) TFBGA	35	Special Ultra		Tray	LY621024GL-35SL
		Low Power		Tape Reel	LY621024GL-35SLT
II BOA			-20 ℃~80℃	Tray	LY621024GL-35SLE
				Tape Reel	LY621024GL-35SLET
			-40°C~85°C	Tray	LY621024GL-35SLI
				Tape Reel	LY621024GL-35SLIT
		Ultra Low	0 ℃~70℃	Tray	LY621024GL-35LL
		Power		Tape Reel	LY621024GL-35LLT
			-20℃~80℃	Tray	LY621024GL-35LLE
				Tape Reel	LY621024GL-35LLET
			-40℃~85℃	Tray	LY621024GL-35LLI
				Tape Reel	LY621024GL-35LLIT
	55	Special Ultra	0 ℃~70℃	Tray	LY621024GL-55SL
		Low Power		Tape Reel	LY621024GL-55SLT
			-20℃~80℃	Tray	LY621024GL-55SLE
				Tape Reel	LY621024GL-55SLET
			-40℃~85℃	Tray	LY621024GL-55SLI
				Tape Reel	LY621024GL-55SLIT
		Ultra Low Power	ow 0°C ~70°C	Tray	LY621024GL-55LL
				Tape Reel	LY621024GL-55LLT
			-20℃~80℃	Tray	LY621024GL-55LLE
				Tape Reel	LY621024GL-55LLET
			-40℃~85℃	Tray	LY621024GL-55LLI
				Tape Reel	LY621024GL-55LLIT
	70	Special Ultra Low Power	0℃~70℃	Tray	LY621024GL-70SL
				Tape Reel	LY621024GL-70SLT
			-20℃~80℃	Tray	LY621024GL-70SLE
				Tape Reel	LY621024GL-70SLET
			-40°C~85°C	Tray	LY621024GL-70SLI
				Tape Reel	LY621024GL-70SLIT
		Ultra Low	0℃~70℃	Tray	LY621024GL-70LL
		Power		Tape Reel	LY621024GL-70LLT
			-20° ℃~ 80° ℃	Tray	LY621024GL-70LLE
				Tape Reel	LY621024GL-70LLET
			-40°C~85°C	Tray	LY621024GL-70LLI
				Tape Reel	LY621024GL-70LLIT



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