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# **GLT6200L08/M08/N08**

#### **ADVANCED**

## 256K x 8 Super Low Power & Low Voltage SRAM

### **FEATURES**

♦ Organization: 256K x 8

◆ Low Data Retention Voltage: 1.5 V (min)

◆ Power Supply Voltage
 GLT6200L08: 2.7 V ~ 3.6 V
 GLT6200M08: 2.3 V ~ 2.7 V
 GLT6200N08: 1.8 V ~ 2.3 V

Maximum 2 μA Standby Current

◆ Three-state output status and TTL compatible

◆ Package type; JEDEC standard 32-Pin SOP, 32-Pin TSOP I, 32-Pin Shrink TSOP I

### **Product Family**

Organization	Part Number	V <sub>CC</sub>	lsb1	Speed	Temperature
256Kx8	GLT6200L/LI	2.7 ~ 3.6 V	2 μα	70/85/100	Commercial: 0 to +70°C
256Kx8	GLT6200M/MI	2.3 ~2.7 V	2 µа	100/120/150	Industrial: -40 to +85°C
256Kx8	GLT6200N/NI	1.8 ~ 2.3 V	2 µа	150/300	

#### **GENERAL DESCRIPTION**

The GLT 6200L08/M08/N08 Super Low-Power SRAM family can support various voltage and operating temperature ranges and has various package types for user

flexibility of system design. The family also support low data retention voltage for battery back-up operations with low data retention current.

## **FUNCTIONAL BLOCK DIAGRAM**

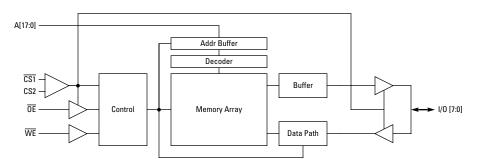


Figure 1. GLT6200L08/M08/N08 256K x 8

## **Signal Descriptions**

Symbol	Туре	Description
A[17:0]	Input	Address Inputs
WE	Control	Write Enable Input
CS1	Control	Chip Select Input
CS2	Control	Chip Select Input
ŌĒ	Control	Output Enable Input
1/0[7:0]	I/O	Data Input/Output
V <sub>CC</sub>	Power	Power
V <sub>SS</sub>	Power	Ground
NC	N/A	No Connection

# Functional Truth Table [1]

CS1	CS2	WE	ŌĒ	Mode	I/O [7:0]	Current Mode
Н	Х	Х	Х	Not Select	High-Z	I <sub>SB</sub> <sup>1</sup>
Х	L	Х	Х	Not Select	High-Z	I <sub>SB</sub> <sup>1</sup>
L	Н	Н	Н	Output Disable	High-Z	I <sub>CC</sub>
L	Н	Н	L	Read	D <sub>OUT</sub>	I <sub>CC</sub>
L	Н	L	Х	Write	D <sub>IN</sub>	I <sub>CC</sub>

<sup>1.</sup> X means don't care (High or Low)

## **ELECTRICAL SPECIFICATIONS**

# Absolute Maximum Ratings [1]

	Parameter				
Voltage on any Pin Relative to V <sub>SS</sub>	-0.2 V to V <sub>CC</sub> + 0.5 V				
Voltage on V <sub>CC</sub> Supply Relative to V <sub>S</sub>	-0.2 V to 4.0 V				
Power Dissipitation	1.0 W				
Storage Temperature		-55 °C to +150 °C			
Operation Temperature	Commercial	0 °C to +70 °C			
	Industrial	-40 °C to +85 °C			
Soldering Temperature and Time	260 °C, 5 Sec (Lead Only)				

<sup>1.</sup> 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 at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect reliability.

## Recommended DC Operating Conditions [1] [2]

Symbol	Description	Product	Min	Тур [3]	Max	Units
V <sub>CC</sub>	Supply Voltage	GLT6200L	2.7	3.3	3.6	V
		GLT6200M	2.3	2.5	2.7	V
		GLT6200N	1.8	2.0	2.3	V
V <sub>SS</sub>	Ground	All Family	0	0	0	V
V <sub>IH</sub>	Input High Voltage	GLT6200L	2.2	-	V <sub>CC</sub> + 0.2 <sup>[4]</sup>	V
		GLT6200M	2.0	-	V <sub>CC</sub> + 0.2 <sup>[4]</sup>	V
		GLT6200N	1.6	-	V <sub>CC</sub> + 0.2 <sup>[4]</sup>	V
V <sub>IL</sub>	Input Low Voltage	All Family	-0.2 <sup>[5]</sup>	_	0.4	V

- 1. Commercial product:  $T_A = 0$  to +70 °C, unless otherwise specified.
- 2. Industrial Product:  $T_A = -40 \text{ to } +85 \,^{\circ}\text{C}$ , unless specified otherwise
- 3. T<sub>A</sub> = 25 °C
- 4.  $V_{IH}$  (max) =  $V_{CC}$  + 1.0 V for  $\leq$  20 ns pulse width
- 5.  $V_{IL}$  (min) = -1.0V for  $\leq$  20 ns pulse width

# Capacitance $^{[1]}$ (f = 1MHz, $T_A = 25$ °C)

Symbol	Description	Conditions	Min	Max	Units
C <sub>IN</sub>	Input Capacitance	V <sub>IN</sub> = 0 V	-	8	pF
C <sub>10</sub>	Input/Output Capacitance	V <sub>10</sub> = 0 V	-	10	pF

1. Capacitance is sampled, not 100% tested

#### **DC Characteristics**

Symbol	Desci	ription		Test Conditions <sup>[1</sup>	]	Min	TYP	Max	Units
I <sub>LI</sub>	Input Leakage Curi	rent	V <sub>IN</sub> = V <sub>S</sub>	SS to V <sub>CC</sub>	-1	-	1	μА	
I <sub>LO</sub>	Output Leakage Cu	rrent	CS1 = V	$_{IH}$ or CS2 = $V_{IL}$ or $\overline{WE}$ = $V_{IL}$ , or $\overline{OE}$	-1	-	1	μА	
			$V_{10} = V_{S}$	<sub>S</sub> to V <sub>CC</sub>					
I <sub>CC</sub>	Operating Power S	Supply Current	CS1 = V	$_{\rm IL}$ , CS2 = $V_{\rm IH}$ , $V_{\rm IN}$ = $V_{\rm IH}$ or $V_{\rm IL}$ , $I_{\rm IO}$	= 0 mA	-	_	12 <sup>[2]</sup>	mA
I <sub>CC1</sub>	Average Operating	Current	Cycle tir	me = 1 $\mu$ s, 100% duty, $\overline{CS1} \le 0.2V$	, $CS2 \ge V_{CC} - 0.2V$ ,	-	-	15 <sup>[2]</sup>	mA
			I <sub>10</sub> = 0 m	nA, $V_{IN} \leq$ 0.2 V, or $V_{IN} \geq V_{CC}$ - 0.2	V				
I <sub>CC2</sub>	Average Operating	Current	CS1 = V	<sub>IL</sub> , CS2 = V <sub>IH</sub> , I <sub>IO</sub> = 0 mA	V <sub>CC</sub> = 3.3V @ 70 ns	-	-	40 <sup>[3]</sup>	mA
				Min cycle, 100% duty $V_{CC} = 2.7V @ 1$		-	-	25	
			$V_{IN} = V_{II}$	<sub>L</sub> or V <sub>IH</sub>	V <sub>CC</sub> = 2.2V @ 150 ns	-	-	15	
V <sub>OL</sub>	Output Low Voltage	е	L <sub>OL</sub>	V <sub>CC</sub> = 3.0/3.3V	2.1 mA	-	-	0.4	V
				V <sub>CC</sub> = 2.5V	0.5 mA	-	-	0.4	
				V <sub>CC</sub> = 2.0V	0.33 mA	-		0.4	
V <sub>OH</sub>	Output High Voltag	е	L <sub>OH</sub>	V <sub>CC</sub> = 3.0/3.3V	-1.0 mA	2.4	-	-	V
				V <sub>CC</sub> = 2.5V	-0.5 mA	2.0	-	-	
				V <sub>CC</sub> = 2.0V	-0.44 mA	1.6	-	-	
I <sub>SB</sub>	Standby Current (T	TL)	$CS2 \le V_{IL} \text{ or } \overline{CS1} \ge V_{IH}, CS2 \ge V_{IH}$			-	-	0.3	mA
I <sub>SB1</sub>	Standby Current   GLT6200x08SL   (CMOS)   GLT6200x08LL		$\overline{\text{CS1}} \ge \text{V}_{\text{CC}} - 0.2\text{V}, \text{CS2} \ge \text{V}_{\text{CC}} - 0.2\text{V}$ Super Low Power		-	0.05 [4]	2 <sup>[5]</sup>	μА	
			or CS2 ≤	≤ 0.2V	Low Low Power		-	10 <sup>[6]</sup>	μА

1. Commercial Products

 $T_A = 0$  to  $70^{\circ}$ C,  $V_{CC} = 2.7 \sim 3.6$ V for GLT6200L Family, VCC = 2.3 (min)  $\sim 2.7$ V (max) for GLT6200M Family,  $V_{CC} = 1.8$  (min)  $\sim 2.3$ V (max) for GLT6200N Family Industrial Product

 $T_{A} = -40 \text{ to } 85^{\circ}\text{C}, V_{CC} = 2.7 \sim 3.6 \text{V for GLT6200LI Family, } V_{CC} = 2.3 \text{ (min)} \sim 2.7 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (max) for GLT6200MI Family, } V_{CC} = 1.8 \text{ (min)} \sim 2.3 \text{V (mi$ 

- 2. The Value is measured at  $V_{CC}$  = 3.6V. The value measured at  $V_{CC}$  = 2.5/2.0V  $\pm$  0.2 is under the value of  $V_{CC}$  = 3.6V
- 3.  $I_{CC2} = 40$  mA with 70 ns cycle at  $V_{CC} = 2.7 \sim 3.6$ V, but the value is not 100% tested but obtained statistically

 $I_{CC2}$  = 25 mA with 120 ns cycle at  $V_{CC}$  = 2.5V  $\pm$  0.2, but the value is not 100% tested but obtained statistically

 $I_{CC2}$  = 15 mA with 300 ns cycle at  $V_{CC}$  = 1.8~ 2.3V, but the value is not 100% tested but obtained statistically

- 4. The value is not 100% tested but obtained statistically at Temp = 25°C
- 5. The value has a difference by  $\pm$  1  $\mu A.$
- 6.  $I_{SB1} = 10 \mu A$  for  $V_{CC} = 2.3 \sim 3.6 V$

 $I_{SB1}$  =  $6\mu A$  for  $V_{CC}$  =  $1.8\sim 2.3 V$ 

# **AC Timing Characteristics**

			-:	70	-{	35	-1	00	-1	20	-1	50	-3	00	
Symbol		Parameter	Min	Max	Unit										
t <sub>RC</sub>	Read	Read Cycle Time	70	-	85	-	100	-	120	-	150	-	300	-	ns
t <sub>AA</sub>		Address Access Time	-	70	-	85	-	100	-	120	-	150	-	300	ns
t <sub>CO</sub>		Chip Select to Output	-	70	-	85	-	100	-	120	-	150	-	300	ns
t <sub>OE</sub>		Output Enable to Valid Output	-	35	-	45	-	50	-	60	-	75	-	150	ns
t <sub>LZ</sub>		Chip Select To Low-Z Output	10	-	10	-	10	-	10	-	20	-	50	-	ns
t <sub>OLZ</sub>		Output enable to Low-Z Output	5	-	5	-	5	-	5	-	10	-	30	-	ns
t <sub>HZ</sub>		Chip Disable To High-Z Output	0	25	0	25	0	30	0	35	0	40	0	60	ns
t <sub>OHZ</sub>		Output Disable to High-Z Output	0	25	0	25	0	30	0	35	0	40	0	60	ns
t <sub>OH</sub>		Output Hold From Address Change	10	-	15	-	15	-	15	-	15	-	30	-	ns
t <sub>WC</sub>	Write	Write Cycle Time	70	-	85	-	100	-	120	-	150	-	300	-	ns
t <sub>CW</sub>		Chip Select to end of Write	65	-	70	-	80	-	100	-	120	-	300	-	ns
t <sub>AS</sub>		Address Set-up time	0	-	0	-	0	-	0	-	0	-	0	-	ns
t <sub>AW</sub>		Address Valid to end of Write	65	-	70	-	80	-	100	-	120	-	300	-	ns
t <sub>WP</sub>		Write Pulse Width	55	-	60	-	70	-	80	-	100	-	200	-	ns
t <sub>WR</sub>		Write Recovery time	0	-	0	-	0	-	0	-	0	-	0	-	ns
t <sub>WHZ</sub>		Write To Output High-Z	0	25	0	25	0	30	0	35	0	40	0	60	ns
t <sub>DW</sub>		Data to Write Time Overlap	30	-	35	-	40	-	50	-	60	-	120	-	ns
t <sub>DH</sub>	1	Data Hold From Write Time	0	-	0	-	0	-	0	-	0	-	0	-	ns
t <sub>OW</sub>		End Write To Output Low-Z	5	-	5	-	5	-	5	-	5	-	20	-	ns

# Test Load and Input/Output Reference [1]

Item	Value	Remark		
Input Pulse Level	0.4 V to 2.2 V	V <sub>CC</sub> = 3.3 V, 3.0 V, 2.5 V		
	0.4 V to 1.8 V	V <sub>CC</sub> = 2.0 V		
Input Rise Fall Time	5 ns	-		
Input And Output	1.5 V	V <sub>CC</sub> = 3.3 V, 3.0 V		
Reference Voltage	1.1 V	V <sub>CC</sub> = 2.5 V		
	0.9 V	V <sub>CC</sub> = 2.0 V		
Output Load	C <sub>L</sub> = 100 PF + 1TTL	See Test Condition #2		
	C <sub>L</sub> = 30 PF + 1TTL			

NOTE: 1. Including Scope and jig capacitance 2. R1 = 3070 $\Omega$ , R2 = 3150 $\Omega$  3. V<sub>TM</sub> = 2.8 for V<sub>CC</sub> = 3.0/3.3V, 2.3V for V<sub>CC</sub> = 2.5V, 1.8 V for V<sub>CC</sub> = 2.0V

Figure 2.

# Temperature and $V_{CC}$ Conditions

Product Family	Temperature	V <sub>CC</sub> Range	Typical Supply VCC	Speed (ns)
GLT6200N	Commercial	1.8 (min) ~ 2.3V (max)	2.0 ± 0.2V	150 <sup>[1]</sup> / 300
GLT6200M	0 °C to +70°C	2.3 (min) ~ 2.7V (max)	2.5 ± 0.2V	100 <sup>[1]</sup> / 120 / 150
GLT6200L		2.7 (min) ~ 3.6V (max)	3.0 ± 0.3V	85 <sup>[1]</sup> / 100
GLT6200L		3.0 (min) ~ 3.6V (max)	3.3 ± 0.3V	70 <sup>[1]</sup> / 85
GLT6200NI	Industrial	1.8 (min) ~ 2.3V (max)	2.0 ± 0.2V	150 <sup>[1]</sup> / 300
GLT6200MI	-40 °C to +85°C	2.3 (min) ~ 2.7V (max)	2.5 ± 0.2V	100 <sup>[1]</sup> / 120 / 150
GLT6200LI		2.7 (min) ~ 3.6V (max)	3.0 ± 0.3V	85 <sup>[1]</sup> / 100
GLT6200LI		3.0 (min) ~ 3.6V (max)	3.3 ± 0.3V	70 <sup>[1]</sup> / 85

<sup>1.</sup> Parameters are measured with 30 pF test load

V<sub>TM</sub> ₹ R1

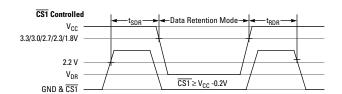
<sup>1.</sup> See test condition of DC and Operating Characteristics

#### **Data Retention Characteristics**

Symbol	Description	Conditions	Min	Тур	Max	Units	
$V_{DR}$	V <sub>CC</sub> For Data Retention	$ \overline{\text{CS1}} \ge \text{V}_{\text{CC}} - 0.2 \text{ V, CS2} \ge \text{V}_{\text{CC}} - 0.2 \text{ V} $ or CS2 $\le$ 0.2 V		1.5	-	3.6	V
I <sub>DR</sub>	Data Retention Current	V <sub>CC</sub> = 3.0 V	Super Low Power	-	-	2 <sup>[1]</sup>	μА
		$\overline{CS1} \ge V_{CC} - 0.2 \text{ V, } CS2 \ge V_{CC} - 0.2 \text{ V}$ or $CS2 \le 0.2 \text{ V}$	Low Low Power	-	-	10 <sup>[1]</sup>	
t <sub>SDR</sub>	Data Retention Set-up Time	See Data Retention Waveform		0	-	-	ns
t <sub>RDR</sub>	Recovery Time			t <sub>RC</sub>	-	-	

<sup>1.</sup> IDR =  $5\mu A$  for low low power at  $V_{CC}$  = 1.5V

IDR =  $1\mu A$  for super low power at  $V_{CC}$  = 1.5V and need special handling.



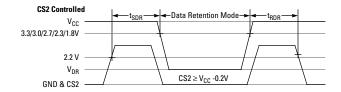
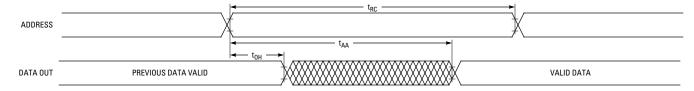


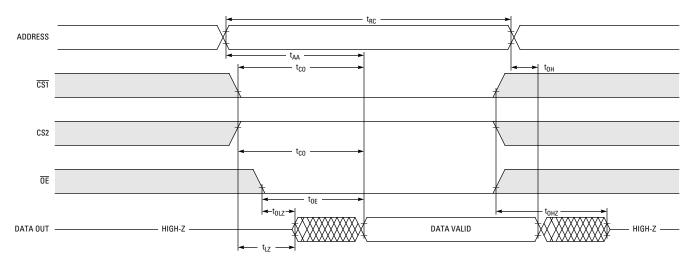
Figure 3. Data Retention Timing Diagram



#### NOTE:

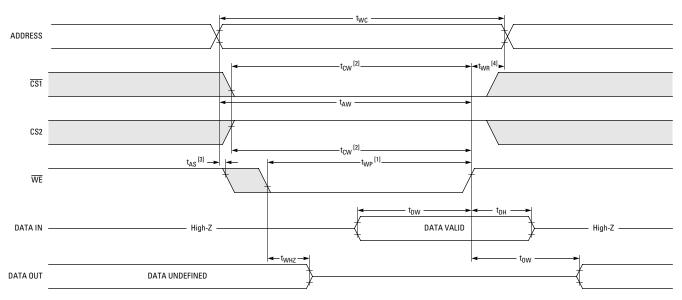
- 1. th<sub>LZ</sub> and t<sub>OHZ</sub> are defined as the time at which the output achieves the open circuit conditions and are not referenced to output voltage levels. 2. At any given temperature and voltage condition, t<sub>HZ</sub> (Max) is less than t<sub>LZ</sub> (Min) both for a given device and device to device interconnection.

Figure 4. Read Cycle Timing (Address Controlled,  $\overline{CS1} = \overline{OE} = V_{IL}$ ,  $\overline{WE} = CS2 = V_{IH}$ )



- 1. t<sub>HZ</sub> and t<sub>OHZ</sub> are defined as the time at which the output achieves the open circuit conditions and are not referenced to output voltage levels. 2. At any given temperature and voltage condition, t<sub>HZ</sub> (Max) is less than t<sub>LZ</sub> (Min) both for a given device and device to device interconnection.

Figure 5. Read Cycle Timing ( $\overline{WE} = V_{IH}$ )

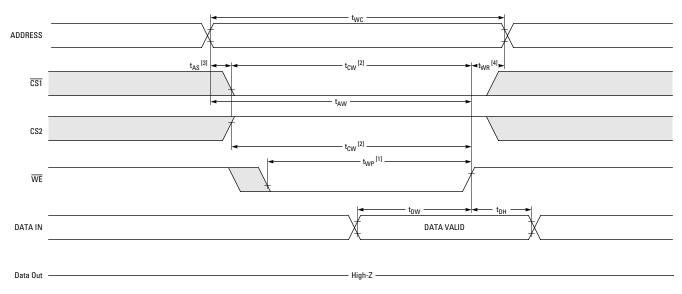


- A write occurs during the overlap of a low  $\overline{CS1}$ , A high  $\overline{CS2}$  and a low  $\overline{WE}$ . A write begins at the latest transition among  $\overline{CS1}$  going and  $\overline{WE}$  going low. A write ends at the earliest transition among  $\overline{CS1}$  goes high and  $\overline{WE}$  going high,  $t_{WP}$  is measured from the beginning of write to the end of write.

  2. town is measured from the later of CS1 going low to the end of write.

- t<sub>AS</sub> is measured from the address valid to the beginning of write.
   t<sub>WR</sub> is measured from the end of write to the address change. t<sub>WR1</sub> applied encase a write ends at CS1, or WE going high.

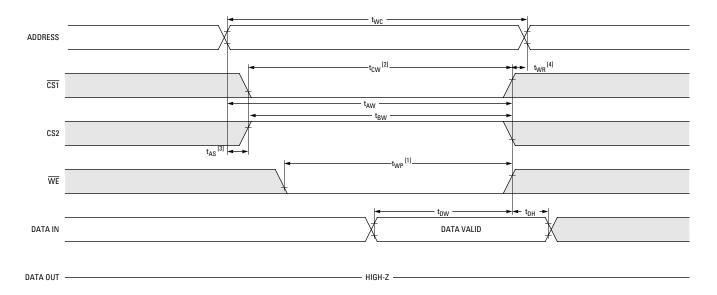
## Figure 6. Write Cycle Timing (WE Controlled)



- 1. A write occurs during the overlap of a low  $\overline{CS1}$ , A high  $\overline{CS2}$  and a low  $\overline{WE}$ . A write begins at the latest transition among  $\overline{CS1}$  going and  $\overline{WE}$  going low. A write ends at the earliest transition among  $\overline{CS1}$  going high, two is measured from the beginning of write to the end of write.

  2. t<sub>CW</sub> is measured from the later of CS1 going low to the end of write.
- t<sub>AS</sub> is measured from the address valid to the beginning of write.
   t<sub>WR</sub> is measured from the end of write to the address change. t<sub>WR1</sub> applied encase a write ends at CS1, or WE going high.

Figure 7. Write Cycle Timing (CS1 Controlled)



- NUIE:

  1. A write occurs during the overlap of a low \(\overlap{CS1}\), A high \(\overlap{CS2}\) and a low \(\overlap{WE}\). A write begins at the latest transition among \(\overlap{CS1}\) going and \(\overlap{WE}\) going low. A write ends at the earliest transition among \(\overlap{CS1}\) going high, \(\tau\_{WP}\) is measured from the later of \(\overlap{CS1}\) going low to the end of write.

  2. \(\tau\_{CW}\) is measured from the later of \(\overlap{CS1}\) going low to the end of write.

- 4. t<sub>WR</sub> is measured from the end of write to the address change. t<sub>WR1</sub> applied encase a write ends at  $\overline{\text{CS1}}$ , or  $\overline{\text{WE}}$  going high.

Figure 8. Write Cycle Timing (CS2 Controlled)

# Packaging Information

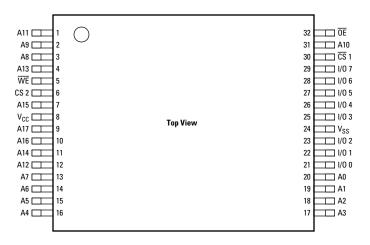
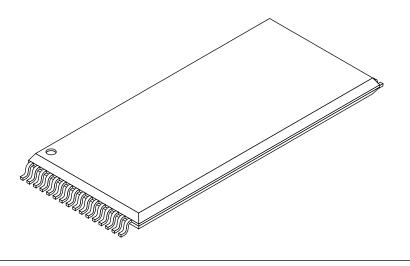
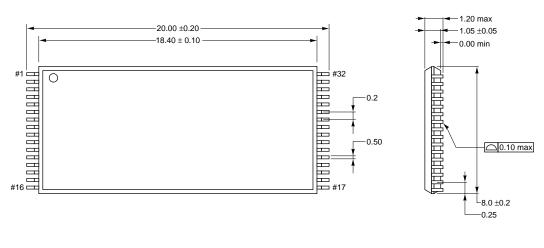


Figure 9. 32-Pin TSOP and sTSOP I Pin Assignment





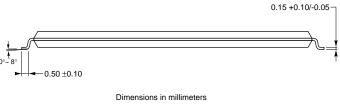
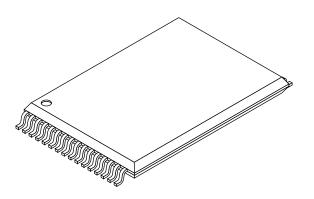


Figure 10. 32-Pin TSOP (Type I) 8 x20 Forward Package Dimensions



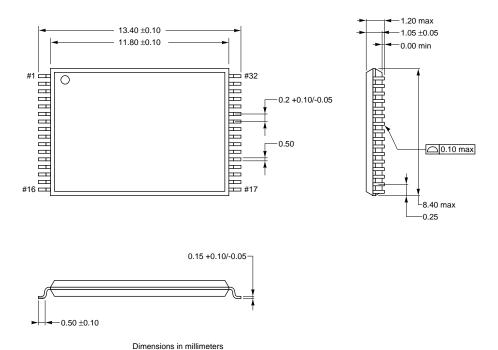


Figure 11. 32-Pin sTSOP (Type I) 8 x13.4 Forward Package Dimensions

## **ORDERING INFO**

### **GLT6200x08LL**

Part Number	Standby Current	Cycle Time	V <sub>CC</sub> Range	Temperature	Orientation	Package
GLT6200L08LL-70TS	10 μΑ	70 ns	3.0 ~ 3.6	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200L08LL-85TS	10 μΑ	85 ns	2.7 ~ 3.6	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200L08LL-70ST	10 μΑ	70 ns	3.0 ~ 3.6	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200L08LL-85ST	10 μΑ	85 ns	2.7 ~ 3.6	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200M08LL-100TS	10 μΑ	100 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LL-120TS	10 μΑ	120 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LL-100ST	10 μΑ	100 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LL-120ST	10 μΑ	120 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LL-150TS	10 μΑ	150 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LL-150ST	10 μΑ	150 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LL-300TS	10 μΑ	300 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200N08LL-300ST	10 μΑ	300 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)

### **GLT6200x08LLI**

Part Number	Standby Current	Cycle Time	VCC Range	Temperature	Orientation	Package
GLT6200L080LLI-70TS	10 μΑ	70 ns	3.0 ~ 3.6	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200L080LLI-85TS	10 μΑ	85 ns	2.7 ~ 3.6	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200L080LLI-70ST	10 μΑ	70 ns	3.0 ~ 3.6	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200L080LLI-85ST	10 μΑ	85 ns	2.7 ~ 3.6	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200M08LLI-100TS	10 μΑ	100 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LLI-120TS	10 μΑ	120 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LLI-100ST	10 μΑ	100 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08LLI-120ST	10 μΑ	120 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LLI-150TS	10 μΑ	150 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LLI-150ST	10 μΑ	150 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08LLI-300TS	10 μΑ	300 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200N08LLI-300ST	10 μΑ	300 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)

## GLT6200x08SL

Part Number	Standby Current	Cycle Time	V <sub>CC</sub> Range	Temperature	Orientation	Package
GLT6200L08SL-70TS	2 μΑ	70 ns	3.0 ~ 3.6	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200L08SL-85TS	2 μΑ	85 ns	3.0 ~ 3.6	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200L08SL-70ST	2 μΑ	70 ns	2.7 ~ 3.6	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200L08SL-85ST	2 μΑ	85 ns	2.7 ~ 3.6	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200M08SL-100TS	2 μΑ	100 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SL-120TS	2 μΑ	120 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SL-100ST	2 μΑ	100 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SL-120ST	2 μΑ	120 ns	2.3 ~ 2.7	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SL-150TS	2 μΑ	150 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SL-150ST	2 μΑ	150 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SL-300TS	2 μΑ	300 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin TSOP I (330mil)
GLT6200N08SL-300ST	2 μΑ	300 ns	1.8 ~ 2.3	Commercial	Forward	32-Pin s-TSOP I (330mil)

## **GLT6200x08SLI**

Part Number	Standby Current	Cycle Time	VCC Range	Temperature	Orientation	Package
GLT6200L080SLI-70TS	2 μΑ	70 ns	3.0 ~ 3.6	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200L080SLI-85TS	2 μΑ	85 ns	3.0 ~ 3.6	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200L080SLI-70ST	2 μΑ	70 ns	2.7 ~ 3.6	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200L080SLI-85ST	2 μΑ	85 ns	2.7 ~ 3.6	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200M08SLI-100TS	2 μΑ	100 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SLI-120TS	2 μΑ	120 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SLI-100ST	2 μΑ	100 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200M08SLI-120ST	2 μΑ	120 ns	2.3 ~ 2.7	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SLI-150TS	2 μΑ	150 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SLI-150ST	2 μΑ	150 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)
GLT6200N08SLI-300TS	2 μΑ	300 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin TSOP I (330mil)
GLT6200N08SLI-300ST	2 μΑ	300 ns	1.8 ~ 2.3	Industrial	Forward	32-Pin s-TSOP I (330mil)



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