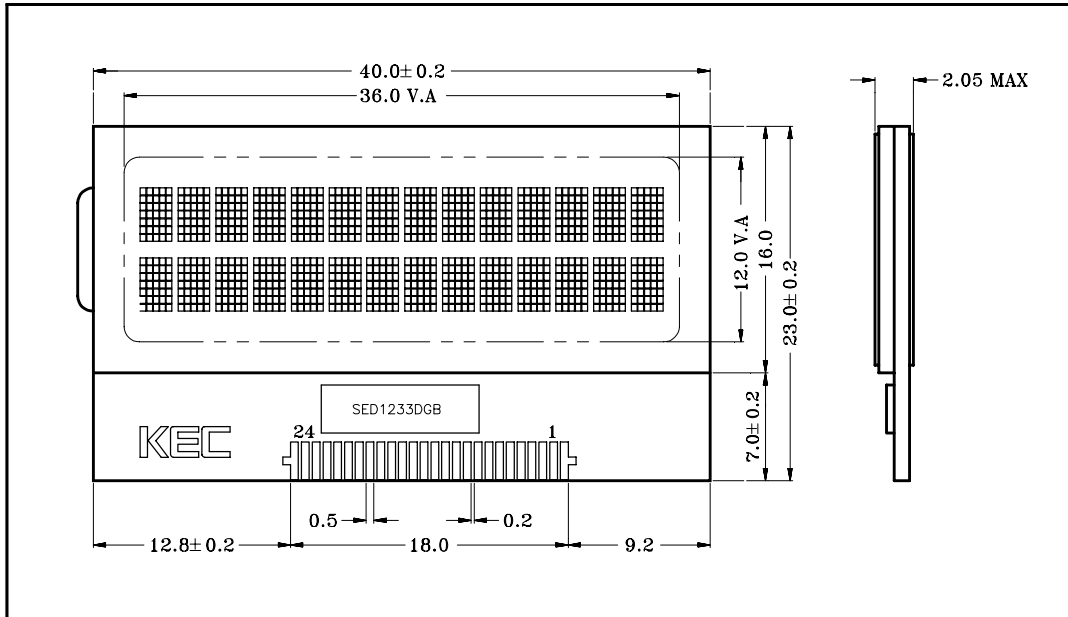


Features

- Display mode : STN (Yellow)- Transflective Type
- Display format : 14 Characters×2 Lines
- Character font : 5×7 Dot
- LCD driver : SED1233
- Driving methode : 1/16 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

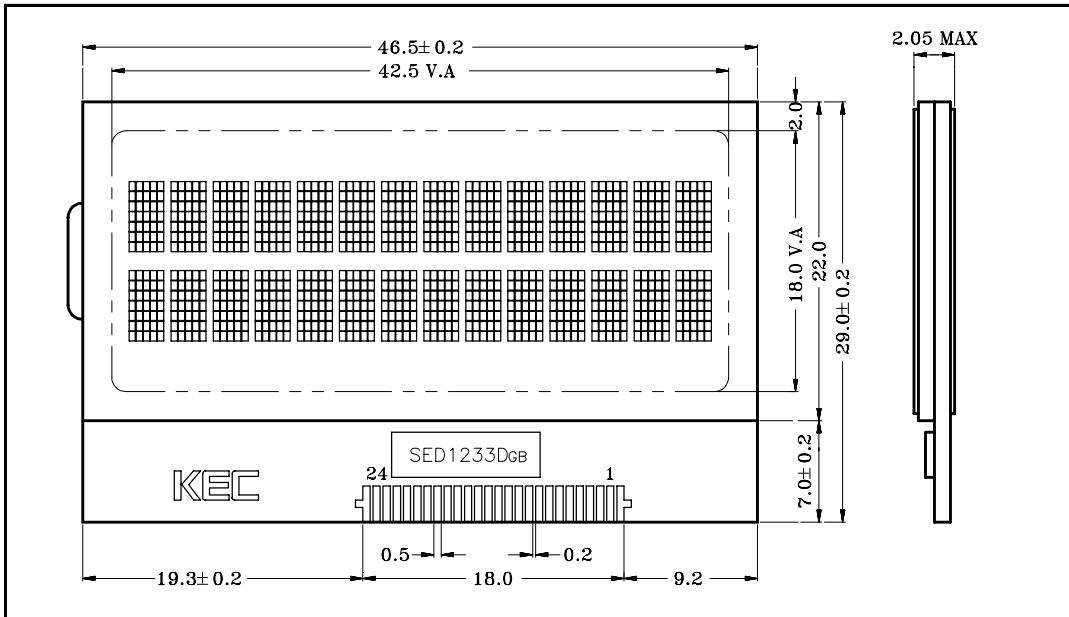
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	A0	8	VDD	15	V0	22	VSS
2	/WR	9	VSS	16	VR	23	VDD
3	ES	10	V5	17	VOUT	24	RES
4	D7	11	V4	18	CAP2(-)		
5	D6	12	V3	19	CAP2(+)		
6	D5	13	V2	20	CAP1(-)		
7	D4	14	V1	21	CAP1(+)		

Features

- Display mode : STN (Yellow)- Transflective Type
- Display format : 14 Characters×2 Lines
- Character font : 5×7 Dot
- LCD driver : SED1233
- Driving methode : 1/16 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

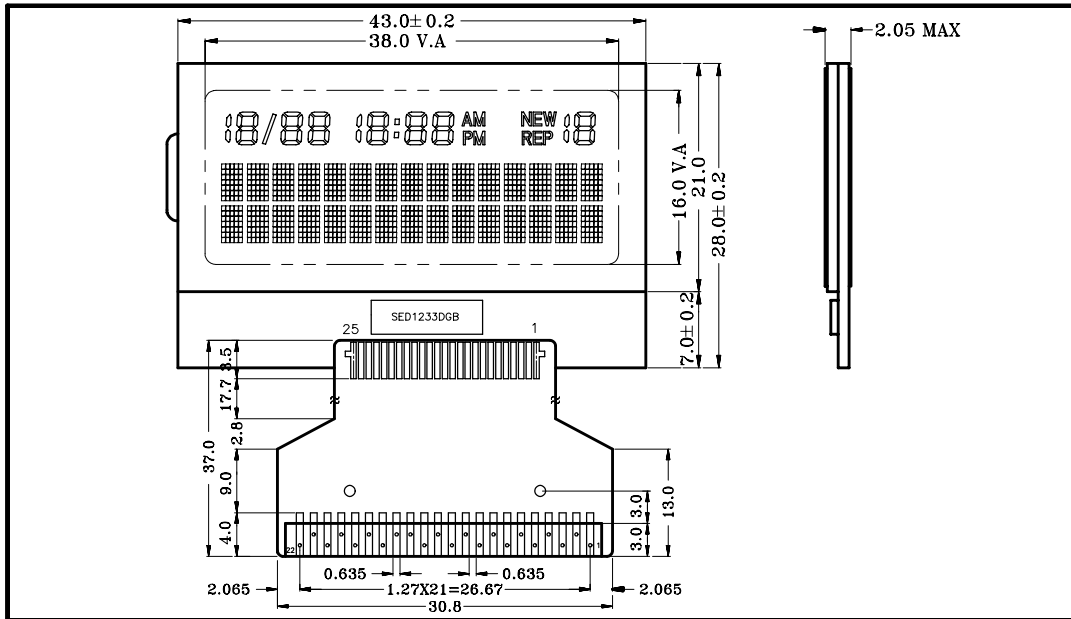
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	A0	8	VDD	15	V0	22	VSS
2	/WR	9	VSS	16	VR	23	VDD
3	ES	10	V5	17	VOUT	24	RES
4	D7	11	V4	18	CAP2(-)		
5	D6	12	V3	19	CAP2(+)		
6	D5	13	V2	20	CAP1(-)		
7	D4	14	V1	21	CAP1(+)		

Features

- Display mode : STN (Yellow)- Transflective Type
- Display format : 15 Characters×2 Lines+ICON
- Character font : 5 × 7 Dot
- LCD driver : SED1233
- Driving methode : 1/17 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

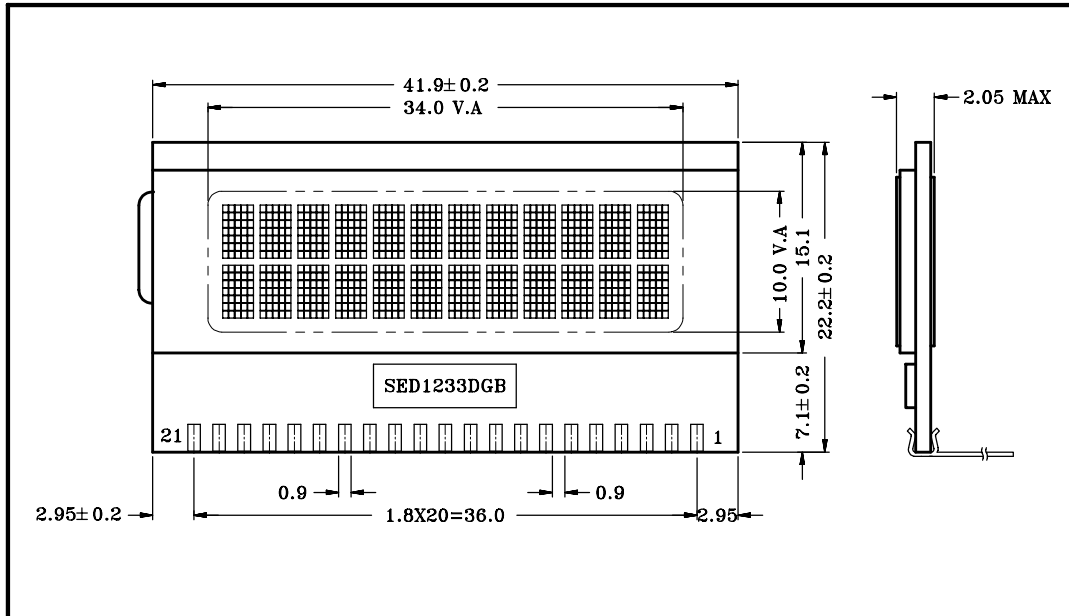
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	A0	8	VDD	15	V0	22	VSS
2	/WR	9	VSS	16	VR	23	VDD
3	/CS	10	V5	17	VOUT	24	P/S
4	D7(SI)	11	V4	18	CAP2(-)	25	RES
5	D6(SCL)	12	V3	19	CAP2(+)		
6	D5	13	V2	20	CAP1(-)		
7	D4	14	V1	21	CAP1(+)		

Features

- Display mode : STN (Gray)- Transflective Type
- Display format : 12 Characters×2 Lines
- Character font : 5×7 Dot
- LCD driver : SED1233
- Driving method : 1/16 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

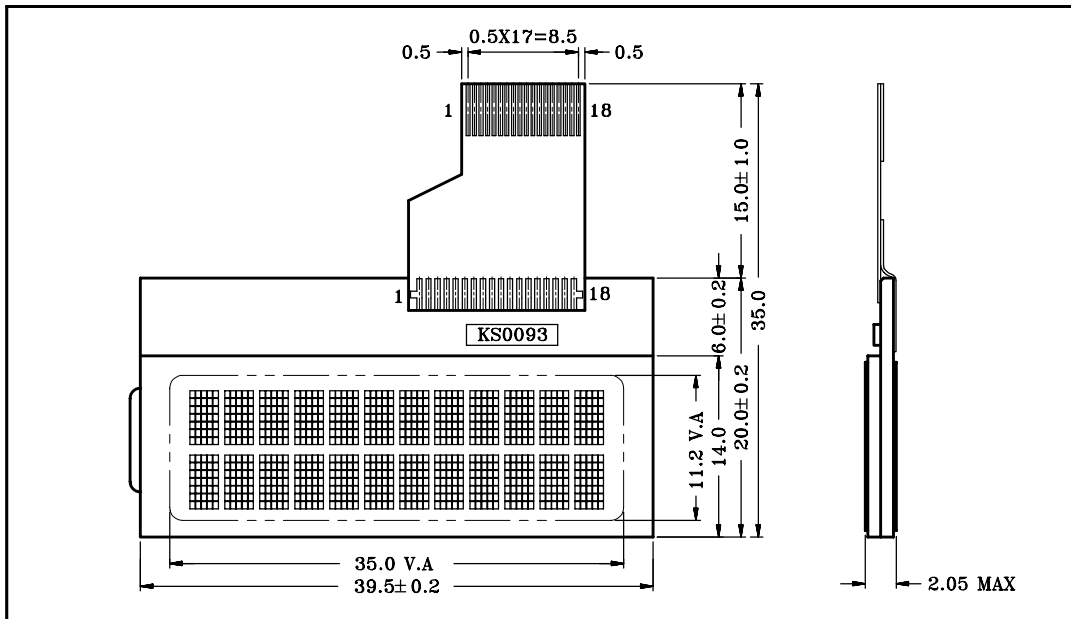
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	A0	8	V4	15	CAP2(-)
2	/CS	9	V3	16	CAP2(+)
3	SI	10	V2	17	CAP1(-)
4	SCL	11	V1	18	CAP1(+)
5	VDD	12	V0	19	VSS
6	VSS	13	VR	20	VDD
7	V5	14	VOUT	21	RES

Features

- Display mode : STN (Yellow)- Reflective Type
- Display format : 12 Characters×2 Lines
- Character font : 5×7 Dot
- LCD driver : KS0093
- Driving method : 1/17 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V_{DD}	-	2.7	3.0	3.3	V	V_{DD}
Supply Voltage for LCD	$V_{DD}-V_5$	$T_a = 0^{\circ}C$	5.3	5.7	6.0	V	V_{DD}, V_5
		$T_a = 25^{\circ}C$	5.0	5.3	5.6		
		$T_a = 50^{\circ}C$	4.7	5.0	5.3		
Power Supply Current	I_{DD}	$V_{DD}=3V : 3$ Times amplified	-	350	500	μA	V_{DD}

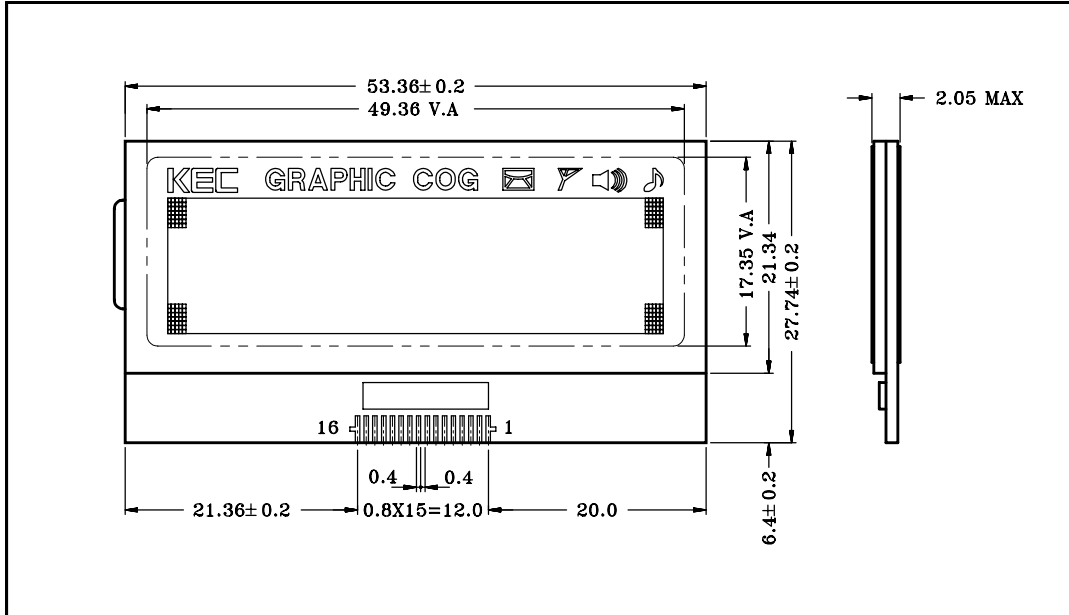
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	RS	8	V1	15	CAP1(+)
2	CSB	9	V0	16	VSS
3	DB7(SI)	10	VR	17	VDD
4	DB6(SCL)	11	VOUT	18	RESETB
5	V4	12	CAP2(-)		
6	V3	13	CAP2(+)		
7	V2	14	CAP1(-)		

Features

- Display mode : STN (Gray)-Transflective Type
- Display format : 134×32 Dots+ICON
- LCD driver : NJU6575
- Driving methode : 1/33 Duty, 1/5 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

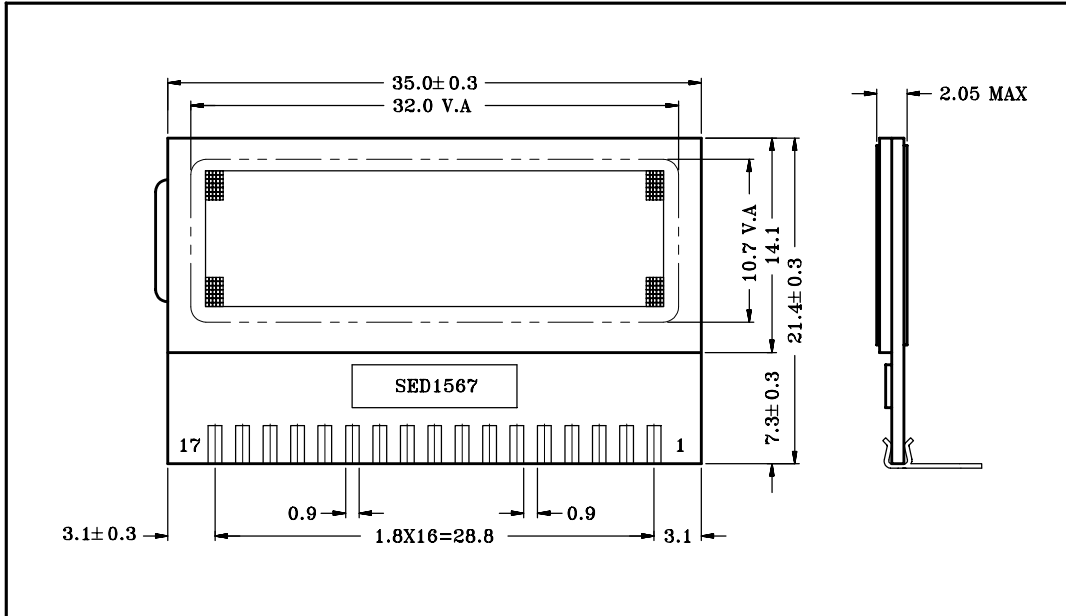
Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	/RES	8	C2+	15	V2
2	VDD	9	C2-	16	V1
3	SCL	10	VOUT		
4	SI	11	VR		
5	/CS	12	V5		
6	A0	13	V4		
7	VSS	14	V3		

Features

- Display mode : STN (Gray)- Transflective Type
- Display format : 128×32 Dots
- LCD driver : SED1567
- Driving methode : 1/33 Duty, 1/6 Bias

External dimensions



Electrical characteristics

ITEM	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	Pin used
Supply Voltage for Logic	V _{DD}	-	2.7	3.0	3.3	V	V _{DD}
Supply Voltage for LCD	V _{DD} -V ₅	T _a = 0°C	5.3	5.7	6.0	V	V _{DD} , V ₅
		T _a = 25°C	5.0	5.3	5.6		
		T _a = 50°C	4.7	5.0	5.3		
Power Supply Current	I _{DD}	V _{DD} =3V : 3Times amplified	-	350	500	μA	V _{DD}

Pin connections

Pin no.	Pin name	Pin no.	Pin name	Pin no.	Pin name
1	/CS	8	VOUT	15	V3
2	/RES	9	CAP1(+)	16	V4
3	A0	10	CAP1(-)	17	V5
4	SCL	11	CAP2(+)		
5	SI	12	CAP2(-)		
6	VDD	13	V1		
7	VSS	14	V2		