

DATA SHEET for LED Display

9.2mm(0.36") Seven Segments Quadruple Digit



Part No.	Common Cathode	Common Anode	
	YDSR-4036KM	YDSR-4036AM	
Dice Color	Chip Material	Color of Segment	Lens Color
Super Red	GaAlAs	White Diffused	Black

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Customer Confirm	Approved by	Checked by	Issued by

Features :

- High efficiency, low power consumption.
- Extremely low current.
- Luminous evenly distributed on each segment.
- Low development cost.
- This Product doesn't contain restriction Substance comply RoHS standard.

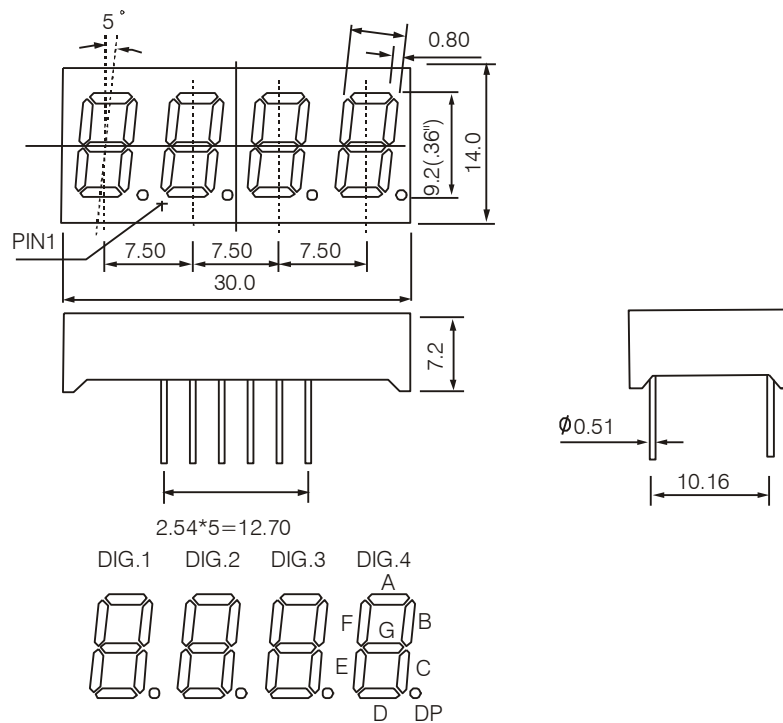
Descriptions :

- Industrial standard size.
- These display provide excellent reliability in bright ambient light.
- These devices are made with white segments and black surface.

Applications :

- Audio equipment or Instrument panels.
- General use for digital indicators.
- Multimedia product.

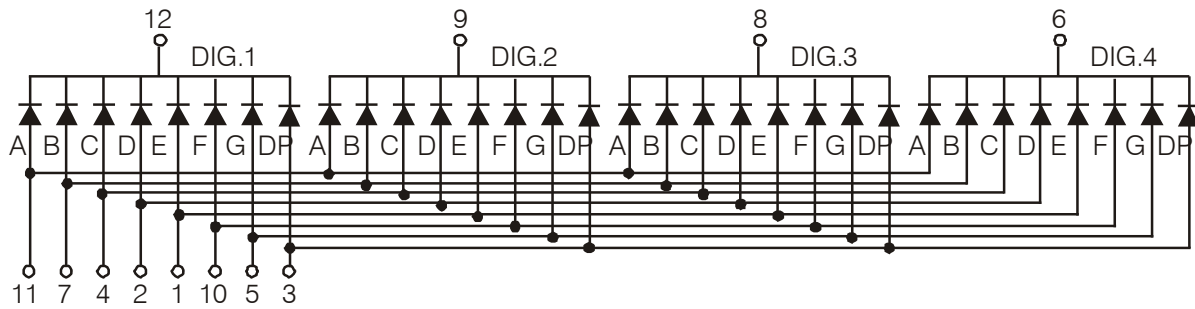
Package Dimensions :



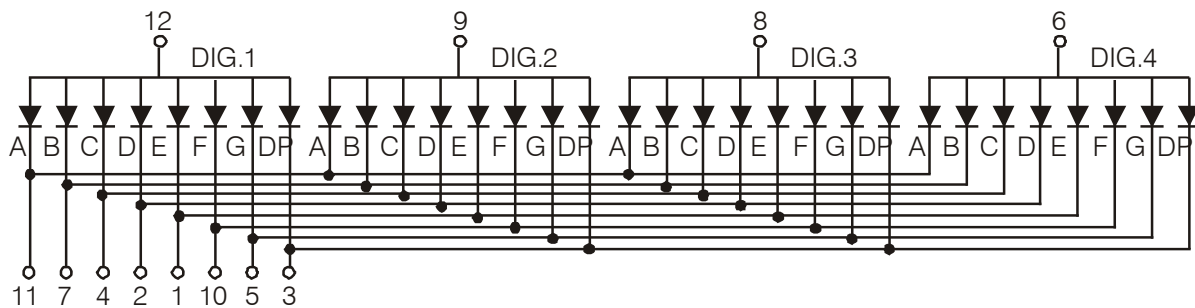
Notes :

- 1) All dimensions are in millimetres (mm), Tolerance is ± 0.25 mm unless otherwise noted.
- 2) Specifications are subject to change without notice.

Internal Circuit Diagram :



(YDSR-4036KM : Common Cathode)



(YDSR-4036AM : Common Anode)

Absolute Maximum Rating of Each Segment (Ta = 25°C)

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation/seg.	P_M	60	mW
Peak Forward Current /seg. (Duty 1/10@ 1KHz)	I_{FP}	70	mA
Continuous Forward Current/seg.	I_F	20	mA
Recommend Use Current/seg.	I_F	5 ~ 10	mA
Reverse Voltage	V_R	5	V
Operation Temperature	T_{opr}	- 20°C ~ 70°C	°C
Storage Temperature	T_{stg}	- 20°C ~ 85°C	°C
Soldering Temperature (time ≤ 5 seconds.)	T_{sol}	260 ± 5	°C

Note : Soldering Time ≤ 5 seconds

Electron-Optical Characteristics of Each Segment (Ta = 25 °C)

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Luminous Intensity/seg.	I _v	4.2		mcd	I _F =20mA
Forward Voltage/seg.	V _F	1.8	2.3	V	I _F =20mA
Reverse Current/seg.	I _R		50	μA	V _R =5V
Peak Wavelength	λ _p	645		nm	I _F =20mA
Spectral Line Half Width	Δλ	30		nm	I _F =20mA

Reliability

1) Test Items and Conditions

Test Item	Test Conditions	Sample	Ac/Re
Temperature Cycle	-40±5 °C → 25±5 °C → 100±5 °C → 25±5 °C (30min, 5min, 30min, 5min) 20 cycles	20	0/1
High Temperature Storage	Ta : 100±5 °C Test time=1000hrs. (-24hrs., +72hrs.)	20	0/1
High Temperature And High Humidity Working	Ta : 85±5 °C, RH: 85±5%, I _F =10mA/seg Test time=500hrs. (-24hrs., +72hrs.)	20	0/1
Low Temperature Storage	Ta : -40±5 °C Test time=1,000hrs. (-24HRS,+72HRS)	20	0/1
Operating Life Test	Connect with a power I _F =10mA/seg Ta=Under room temperature Test time=1,000hrs. (-24hrs., +72hrs.)	20	0/1
Solder Resistance	T. Sol = 260±5 °C one time Dwell Time=5±1 secs., distance 3mm	20	0/1
Thermal Shock	-40±5 °C → 100±5 °C (15min, 15min) 20 cycles	20	0/1

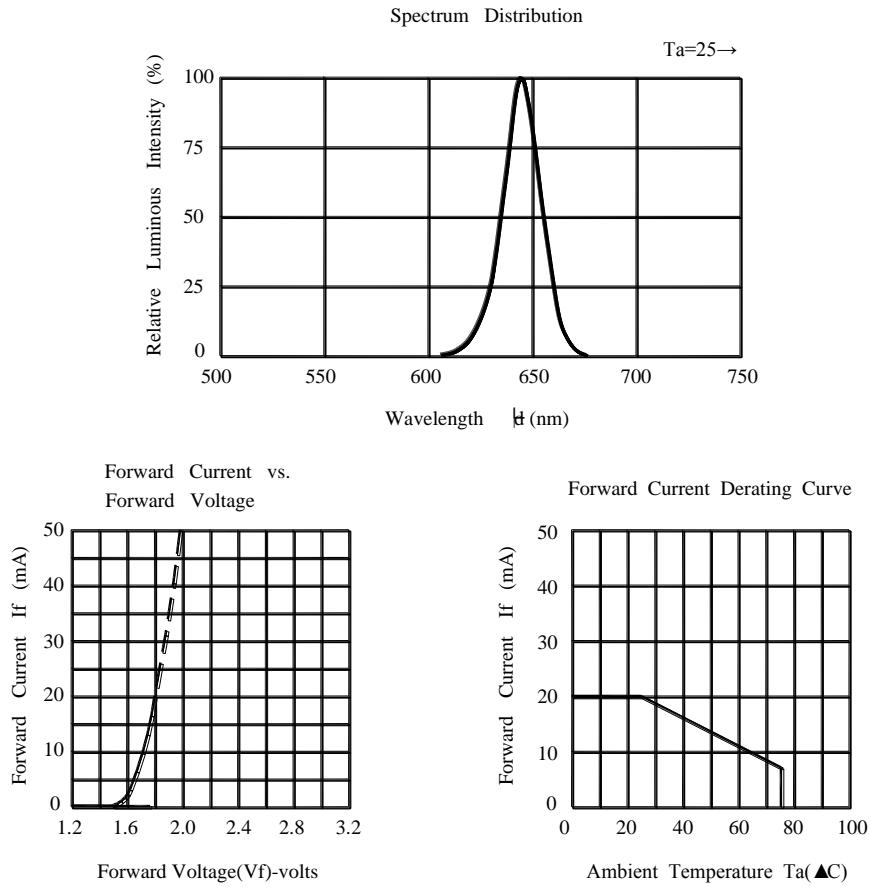
2) Criteria of judging the damage

Item	Symbol	Test condition	Criteria for judgement	
			Min.	Max.
Forward voltage	V _F	I _F =10mA/seg	/	U.S.L*1.1
Reverse current	I _R	V _R =5V	/	15uA
Luminous intensity	I _V	I _F =10mA/seg	L.S.L*0.7	/
Wave length	λ _D /λ _P	I _F =10mA/seg	/	U.S.L±2nm
Appearance	/	View check	No mechanical damage	

* U.S.L: Upper standard level

L.S.L: Lower standard level

Typical Characteristic Curves :



Notes :

1. Above specification may be changed without notice. We will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for the specification sheets. We assume no responsibility for any damage resulting from use of the product which does not comply with the instructions included in the specification sheets.