

SPECIFICATIONS FOR LED DISPLAYS

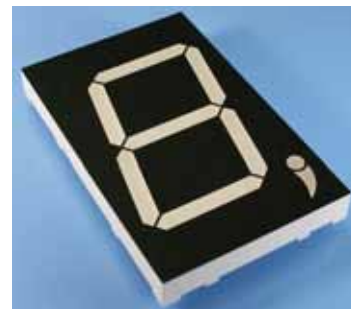
75.5mm(3.0") Seven Segments Single Digit

LSD300 -10 Series

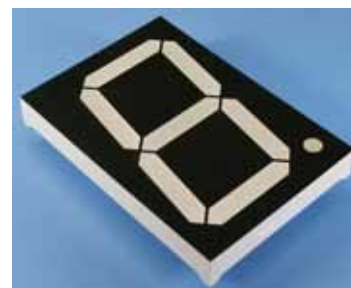
WENRUN OPTOELECTRONIC

Features:

- High efficiency, low power consumption.
- Extremely low current.
- Luminous evenly distributed on each segment.
- Low development cost.

**LSD300A/B -10****Descriptions:**

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

**LSD300E/F -10****Applications:**

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

Selection Guide:

Part No.		Chip		Lens Color
Anode	Cathode	Material	Emitting Color	
LSD300B/FSR-10	LSD300A/ESR-10	GaAlAs	Super Red	White Diffused
LSD300B/FG-10	LSD300A/EG-10	GaP	Green	
LSD300B/FY-10	LSD300A/EY-10	GaAsP/GaP	Yellow	

Absolute Maximum Rating (Ta=25)**【LSD300A/B】**

Parameter	Symbol	Super Red	Green	Yellow	Unit
Power Dissipation/Segment	P_d	250	330	330	mW
Peak Forward Current /Segment (Duty 1/10@ 1KHz)	I_{FP}	60	60	60	mA
Continuous Forward Current /Segment	I_F	15	15	15	mA
Recommend use current /Segment	I_F	5~10	5~10	5~10	mA
Reverse Voltage /Segment	V_R	20	20	20	V
Operating Temperature Range	T_{opr}	-25~ +75			
Storage Temperature Range	T_{stg}	-30 ~ +85			
Solder Temperature	T_{sol}	260 ± 5			

- Notes :**
- 1、 This is the limit current. It is not allowed to use when the product work continuously.
 - 2、 It is recommended that the product is driven by TTL,CMOS.
 - 3、 Soldering time 5 seconds.

Absolute Maximum Rating (Ta=25)**【LSD300E/F】**

Parameter	Symbol	Super Red	Green	Yellow	Unit
Power Dissipation/Segment	P_d	190	220	220	mW
Peak Forward Current /Segment (Duty 1/10@ 1KHz)	I_{FP}	60	60	60	mA
Continuous Forward Current /Segment	I_F	15	15	15	mA
Recommend use current /Segment	I_F	5~10	5~10	5~10	mA
Reverse Voltage /Segment	V_R	12	12	12	V
Operating Temperature Range	T_{opr}	-25~ +75			
Storage Temperature Range	T_{stg}	-30 ~ +85			
Solder Temperature	T_{sol}	260 ± 5			

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 - 3、 Soldering time 5 seconds.

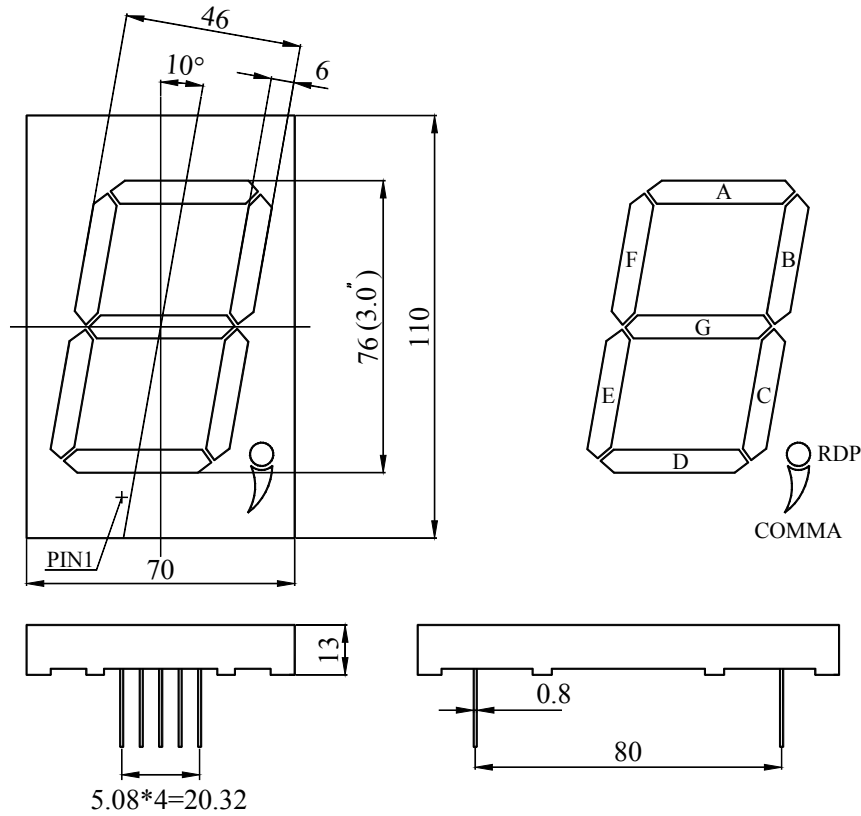
Electrical Optical Characteristics (Ta=25)**【LSD300A/B】**

Parameter	Symbol	Super Red		Green		Yellow		Unit	Test Condition
		Typ.	Max.	Typ.	Max.	Typ.	Max.		
Luminous Intensity /Segment	I _V	33	--	16	--	16	--	mcd	I _F =10mA
Forward Voltage /Segment	V _F	11	13.8	13.2	15	12	15	V	I _F =20mA
Reverse Current /Segment	I _R	--	50	--	50	--	50	uA	V _R =5V
Dominant Wavelength	d	645	--	565	--	585	--	nm	I _F =20mA
Spectral Line Half Width		30	--	30	--	30	--	nm	I _F =20mA

Electrical Optical Characteristics (Ta=25)**【LSD300E/F】**

Parameter	Symbol	Super Red		Green		Yellow		Unit	Test Condition
		Typ.	Max.	Typ.	Max.	Typ.	Max.		
Luminous Intensity /Segment	I _V	23	--	11	--	11	--	mcd	I _F =10mA
Forward Voltage /Segment	V _F	7.4	9.2	8.8	10	8.0	10	V	I _F =20mA
Reverse Current /Segment	I _R	--	50	--	50	--	50	uA	V _R =5V
Dominant Wavelength	d	645	--	565	--	585	--	nm	I _F =20mA
Spectral Line Half Width		30	--	30	--	30	--	nm	I _F =20mA

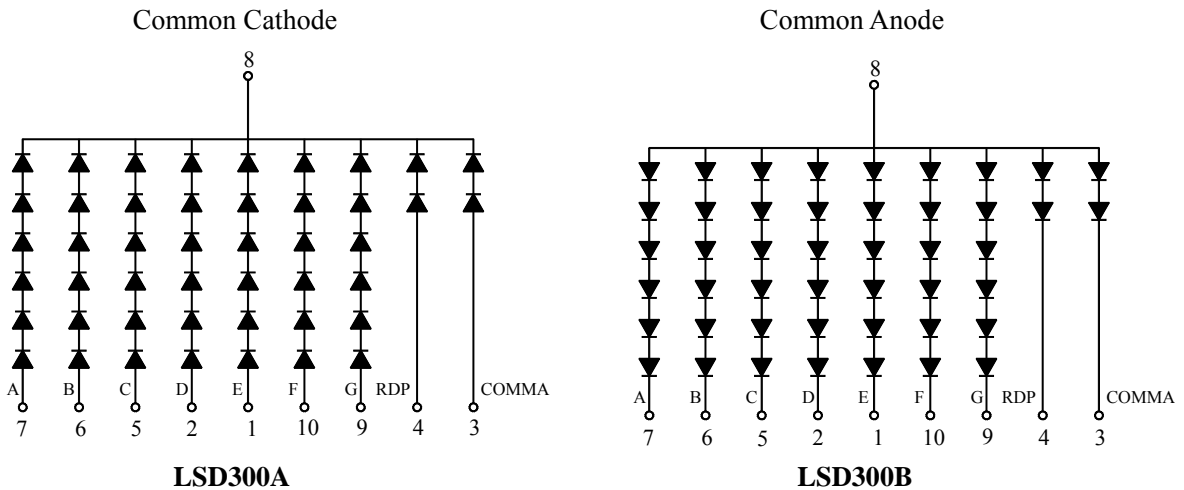
Package Dimensions:



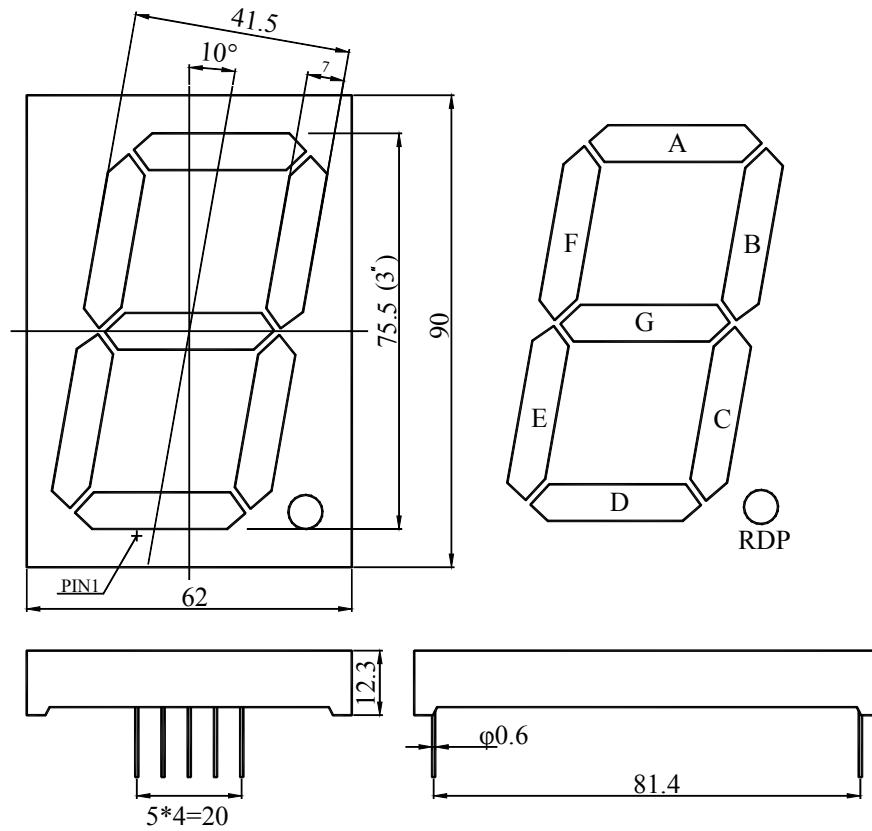
NOTES :

- All dimensions are in millimetres (mm), Tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.
- Specifications are subject to change without notice.

Internal Circuit:



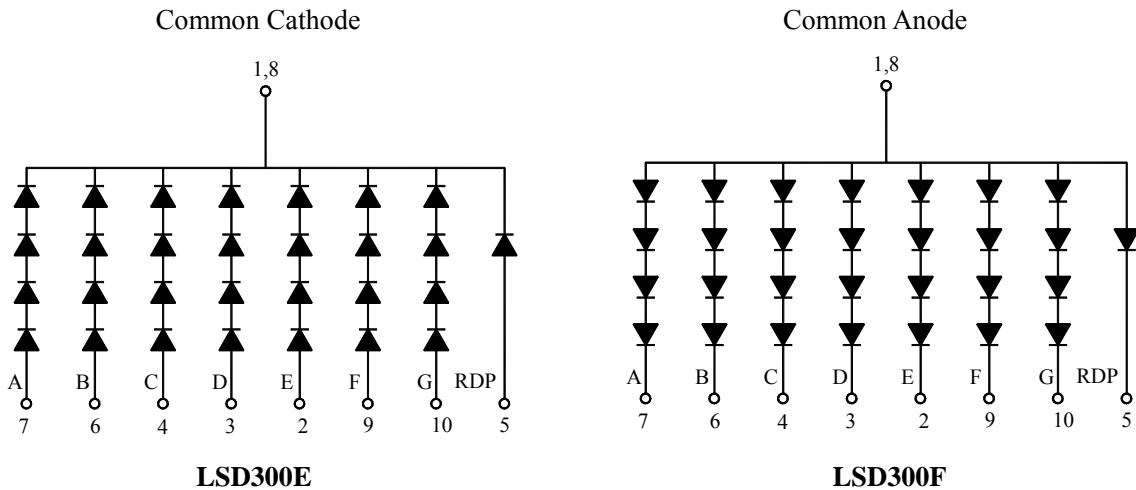
Package Dimensions:



NOTES :

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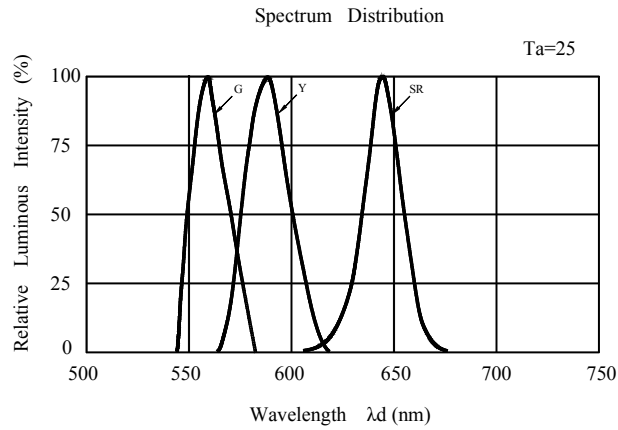
Internal Circuit:



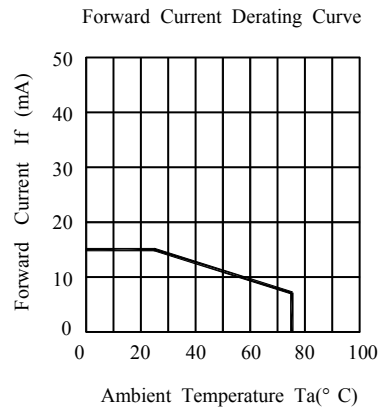
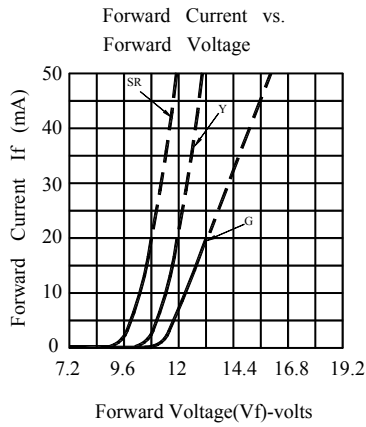
Reliability Test Items and Conditions

NO	Test Item	Test Conditions	Duration	Sample	Ac/Re
1	Temperature Cycle	-30 ~ 25 ~ 85 ~ 25 30min 5min 30min 5min	50cycles	100	0/1
2	High Temp. Storage	Ta=85	1000hours	100	0/1
3	Temp.& Humidity Test	Ta=85 RH=85%	1000hours	100	0/1
4	Low Temp. Storage	Ta=-30	1000hours	100	0/1
5	Operating Life Test	Ta=25 ± 5 DC IF=15mA	1000hours	100	0/1
6	Solder Heat	Tsol=260 ± 5 , 10s	1times	20	0/1

Typical Electro-Optical Characteristics Curves



LSD300A/B
SR/G/Y



LSD300E/F
SR/G/Y

