WCN Opto Group Co., Limited

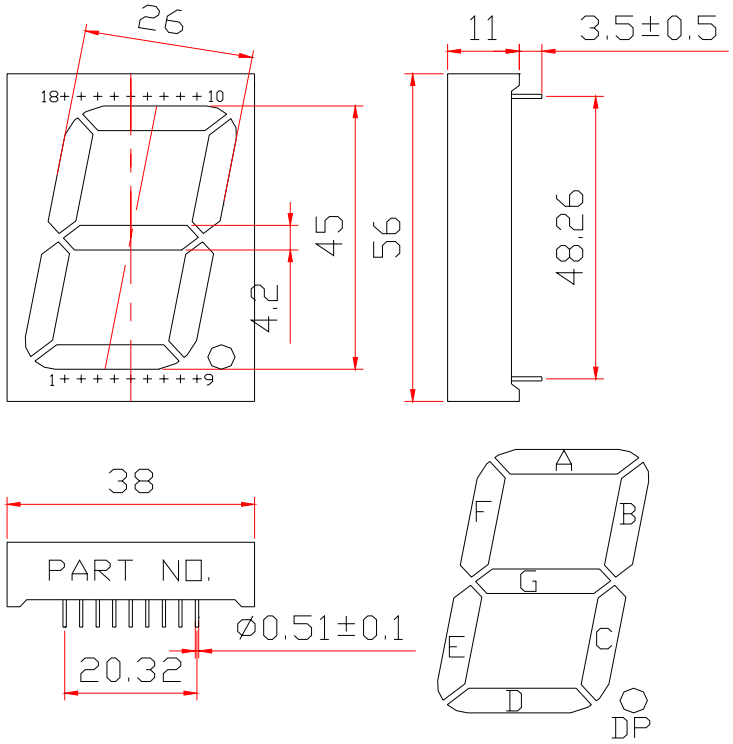
WCN1-00A8D6-AB1S

SPECIFICATION

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei 2017-4-5	Athena		

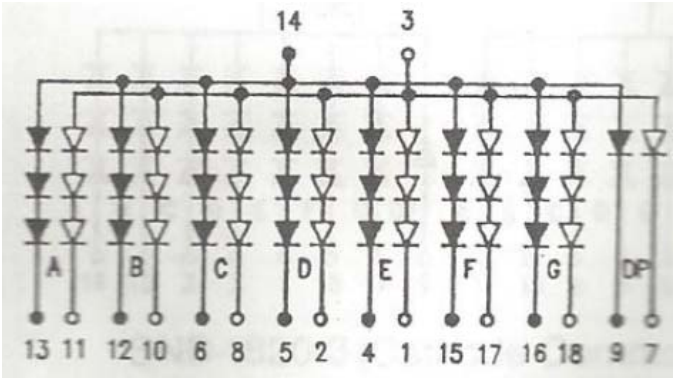
REVISION: A0

■ Outer Dimension:



Notes: Unless otherwise stated, The tolerance is ±0.25mm.

■ Circuit Diagram



the sign " ◀ " represent Red chips
the sign " ▶ " represent Yellow Green chips

■ Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Cathode E(Yellow Green)	7	Cathode DP(Yellow	13	Cathode A(Red)
2	Cathode D(Yellow Green)	8	Cathode C(Yellow Green)	14	Common (Red)
3	Common (Yellow Green)	9	Cathode DP(Red)	15	Cathode F(Red)
4	Cathode E(Red)	10	Cathode B(Yellow Green)	16	Cathode G(Red)
5	Cathode D(Red)	11	Cathode A(Yellow Green)	17	Cathode F(Yellow Green)
6	Cathode C(Red)	12	Cathode B(Red)	18	Cathode G(Yellow Green)

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■ Features:

. High Reliability
. Color: Red and Yellow Green
. Low Power Requirement
. Easy Assembly

■ Description:

. Single Digit LED Display
. Digit Height: 45 mm (1.8″)
. Black Face and Milky Segment

■ Absolute Maximum Rating (Ta=25℃):

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P_d	—	Red/Yellow Green	130 / 130	mW
Power Dissipation Per DP				65 / 65	
Forward Current Per Segment/DP	I_F	—	Red/Yellow Green	25/25	mA
Peak Forward Current Per	I_{FP}	1/10 Duty 0.1ms	Red/Yellow Green	100	mA
Reverse Voltage Per Segment/DP	V_R	—	Red/Yellow Green	10 / 5	V
Operating Temperature Range	Topr	—	—	-35～+85	℃
Storage Temperature Range	Tstg	—	—	-35～+85	℃

■ Electrical/Optical Characteristics Rating(Ta=25℃):

Item	Symbol	Test condition	Location	Color	Rating			Units
					Min.	Typ.	Max.	
Forward Voltage	V_F	I_F=20mA	Per DP/ Segment	Red	—	2.0/4.0	2.60/5.2	V
				Yellow green	—	2.25/4.5	2.60/5.2	
Reverse Current	I_R	V_R=5V	Per DP/ Segment	Red	—	—	100	μA
		V_R=10V		Yellow green				
Luminous Intensity	Iv	IF=10mA	Per Segment	Red+Yellow green	12.56	25.00	—	mcd
Wave Length	λP	I_F=20mA	Per DP/ Segment	Red / Yellow Green	—	660/565	—	nm
	λD					640/571		
Spectral Line Half Width	△λ	I_F=20mA	Per DP/ Segment	Red	—	20	—	nm
				Yellow green		30		

■ Soldering Conditions : Soldering Temp. ≦+260℃, Soldering Time. ≦3sec.
(at 2mm Distance from The Case of Reflector Edge)

■ LED Displays Reliability Test:

CLASSIFICATION	TEST ITEM	DESCRIPTION AND TEST CONDITION
ENDURANCE TEST	OPERATION LIFE	EVALUATES RESISTANCE OF THE DEVICE WHEN OPERATED AT ELECTRICAL STRESS T_a = UNDER ROOM TEMPERATURE $I_F = I_F$ max
	HIGH TEMPERATURE HIGH HUMIDITY STORAGE	EVALUATES MOISTURE RESISTANCE OF THE DEVICE WHEN STORED FOR A LONG TERM AT HIGH TEMPERATURE AND HUMIDITY T_a =65±5°C RH=90~95%RH TEST TIME=240± 2Hrs
	HIGH TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN HIGH TEMPERATURE T_a =85±5°C(COB: Ta=65±5°C) TEST TIME=1000Hrs(-24Hrs, +72Hrs)
	IOW TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN LOW TEMPERATURE T_a =-35±5°C TEST TIME=1000Hrs(-24Hrs, +72Hrs)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	EVALUATES RESISTANCE OF DEVICE AT THERMAL STRESSES OR EXPANSION AND CONTRACTION 85°C ~ 25°C ~ -35°C ~ 25°C 30min 5min 30min 5min 10 CYCLES(COB: Thot=65°C, Tcold=-25°C
	THERMAL SHOCK	EVALUATES DEVICE STRUCTURE AND STRUCTURE AND MECHANICAL RESISTANCE WHEN SUDDENLY EXPOSED AT SERVE CHANGES 85±5°C ~-35±5°C 10min 10min 10 CYCLES(COB: Thot=65°C,Tcold=-25°C
	SOLDERABILITY	EVALUATES SOLDERABILITY ON LEADS OF DEVICE T.SOL=230±5°C DWELL TIME=5±1sec.
	SOLDER RESISTANCE	EVALUATES RESISTANCE TO THERMAL STRESS CAUSED BY SOLDERING T.SOL=260±5°C DWELL TIME=10±1sec.

■ Packing method :

32pcs / Red Expandable Polyethylene.
350pcs / Box(365*265*255mm).
700pcs / Carton(550*380*280mm).

■ Packing method B:

25 pcs / Plastic tray. (350*250*18)
300 pcs / Box(365*265*255mm).
600 pcs / Carton(550*380*280mm).