DUAL DIGIT SMD DISPLAY(0.20")

LSDD205/6DBK-XX

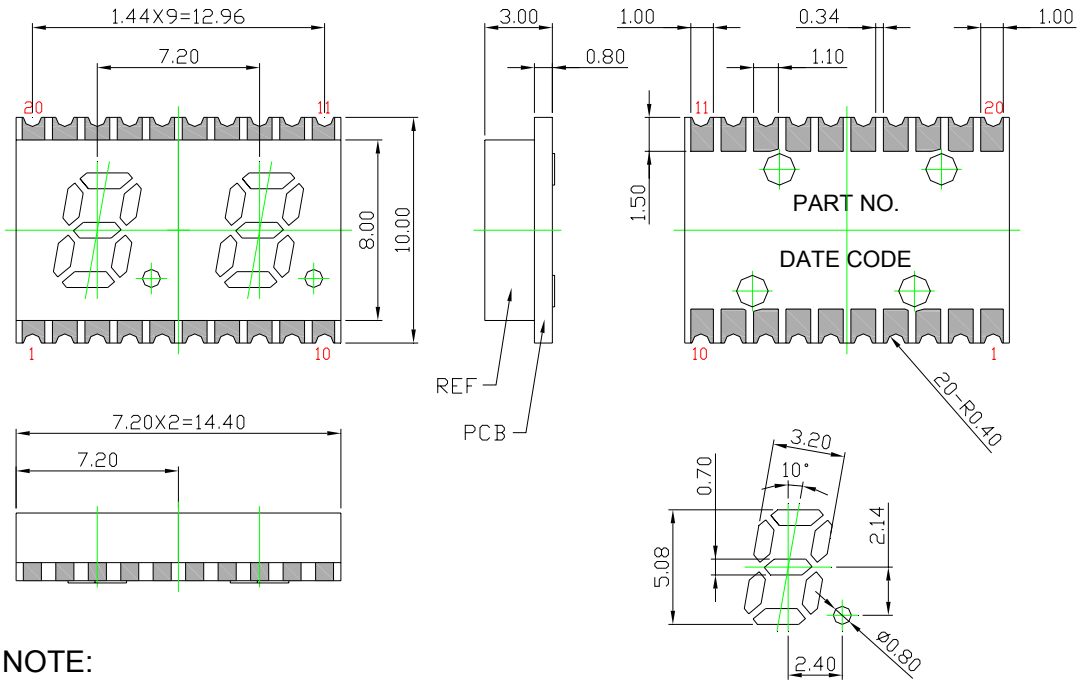
DATA SHEET

DOC.NO	:	QW0905- LSDD205/6DBK-XX
REV.	:	A
DATE	:	17 – May. – 2013

發行
立碁電子
DCC

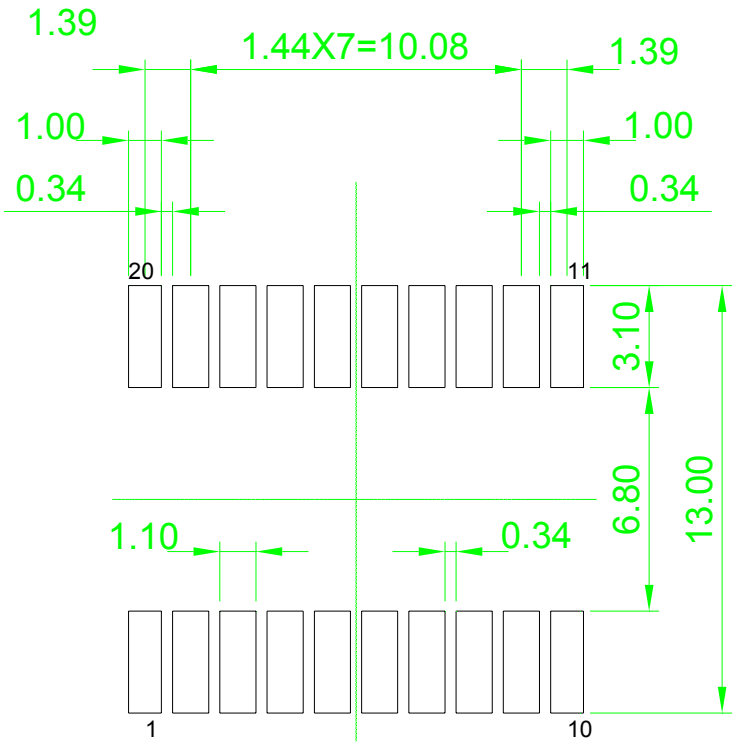
TEL:02-7703-6000 FAX : 02-7703-6286 No. 238, Bo-ai St., Shulin District, New Taipei City 238, Taiwan R.O.C

Package Dimensions

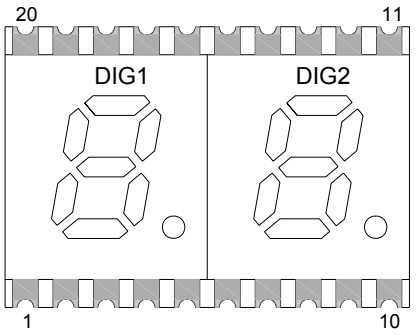


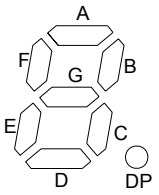
NOTE:
Dimension in millimeter (inch),
And tolerance is ±0.25 (.01) specified.

Recommended Soldering Pad Dimensions

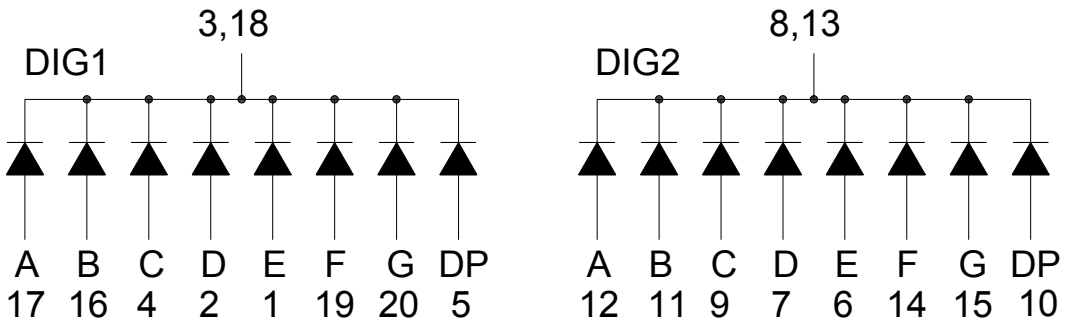


Internal Circuit Diagram

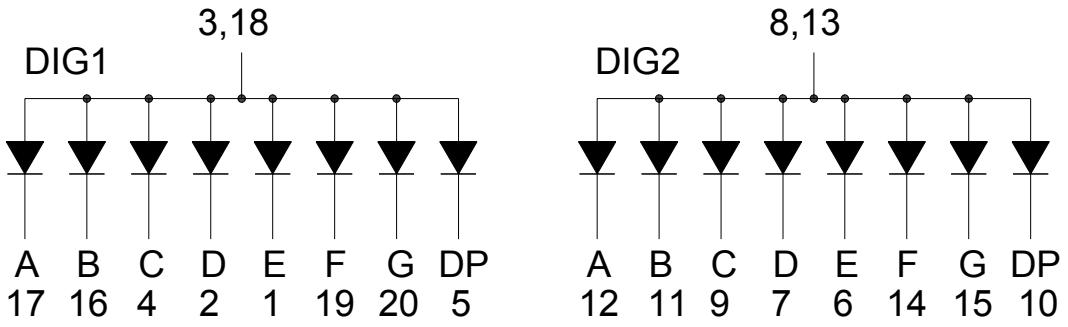




DIG1-DIG2



LSDD205DBK-XX (Common Cathode)



LSDD206DBK-XX (Common Anode)

Electrical Connection

PIN NO.	**LSDD205DBK-XX**	PIN NO.	**LSDD206DBK-XX**
1	Anode DIG1 E	1	Cathode DIG1 E
2	Anode DIG1 D	2	Cathode DIG1 D
3	Common Cathode DIG1	3	Common Anode DIG1
4	Anode DIG1 C	4	Cathode DIG1 C
5	Anode DIG1 DP	5	Cathode DIG1 DP
6	Anode DIG2 E	6	Cathode DIG2 E
7	Anode DIG2 D	7	Cathode DIG2 D
8	Common Cathode DIG2	8	Common Anode DIG2
9	Anode DIG2 C	9	Cathode DIG2 C
10	Anode DIG2 DP	10	Cathode DIG2 DP
11	Anode DIG2 B	11	Cathode DIG2 B
12	Anode DIG2 A	12	Cathode DIG2 A
13	Common Cathode DIG2	13	Common Anode DIG2
14	Anode DIG2 F	14	Cathode DIG2 F
15	Anode DIG2 G	15	Cathode DIG2 G
16	Anode DIG1 B	16	Cathode DIG1 B
17	Anode DIG1 A	17	Cathode DIG1 A
18	Common Cathode DIG1	18	Common Anode DIG1
19	Anode DIG1 F	19	Cathode DIG1 F
20	Anode DIG1 G	20	Cathode DIG1 G

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Ratings	UNIT
Power Dissipation	PD	120	mW
Peak pulse current Duty 1/10@10KHz	I_{FP}	100	mA
Forward Current Per Chip	I_F	30	mA
Debating liner from 25°C per segment	---	0.3	mA / °C
Storage Temperature	T_{stg}	-40 ~ +105	°C
Operating Temperature	T_{opr}	-40 ~ +105	°C

Typical Electrical & Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	----	20		mcd	IF=20mA
Dominant Wavelength	λ D	----	470	--------	nm	IF=20mA
Spectral Line Half-Width	ΔP	----	30	----	nm	IF=20mA
Forward Voltage	VF	----	3.2	4.0	V	IF=20mA
Reverse Current	Ir	----	----	10	μA	VR=5V

Note : 1.The forward voltage data did not including ±0.1V testing tolerance.
2.The luminous intensity data did not including ±15% testing tolerance.

Typical Electro-Optical Characteristics Curve

(25 ℃ Free Air Temperature Unless Otherwise Specified)

DBK: SUPER BRIGHT BLUE (InGaN) CURVE

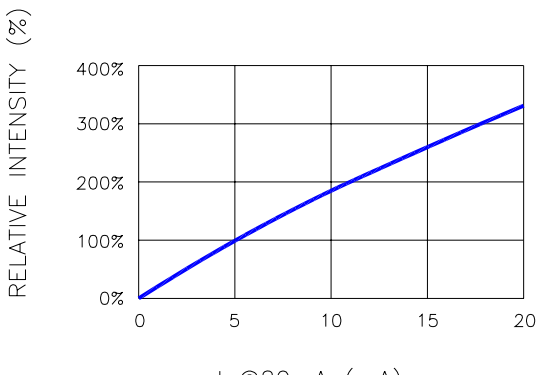


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

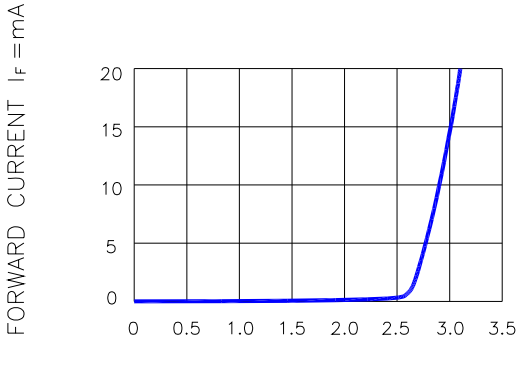


Fig.2 FORWARD CURRENT VS. FORWARD VOLT.

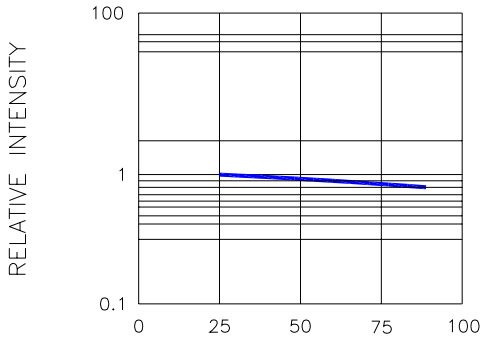


Fig.3 RELATIVE INTENSITY VS.LEAD TEMPERATURE (PULSED 20 mA; 300us PULSE,10ms PERIOD)

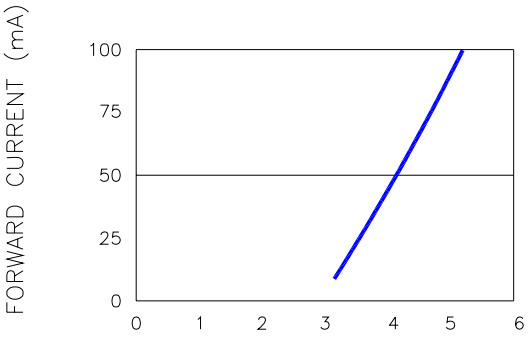


Fig.4 PEAK FORWARD VOLTAGE VS.FORWARD(100us TEST PULSE, 1% DUTY CYCLE)

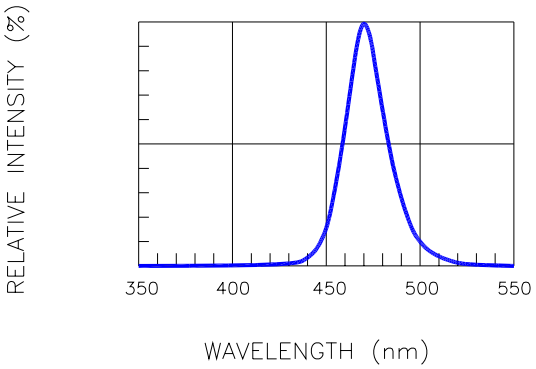


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

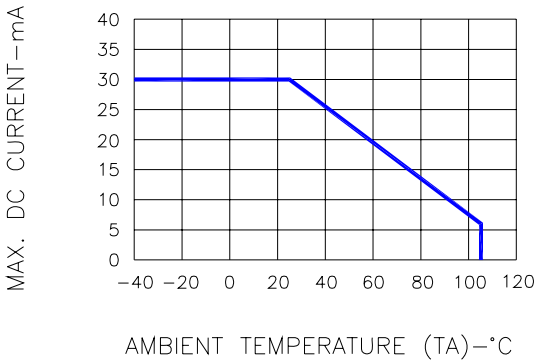
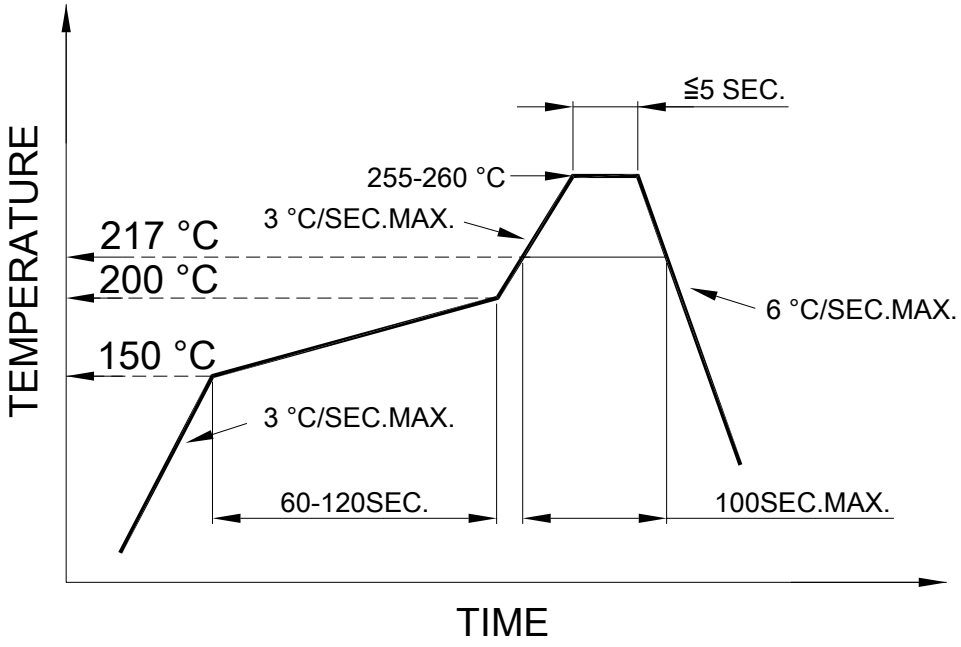


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

SMT REFLOW SOLDERING INSTRUCTIONS

SMT Soldering Profile

Pb free reflow soldering Profile



SOLDERING IRON

Basic spec is ≦4 sec when 260°C. If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

REWORK

Customer must finish rework within 3 sec. under 350℃.

The head of soldering iron cannot touch copper foil.