DUAL DIGIT SMD DISPLAY(0.28")

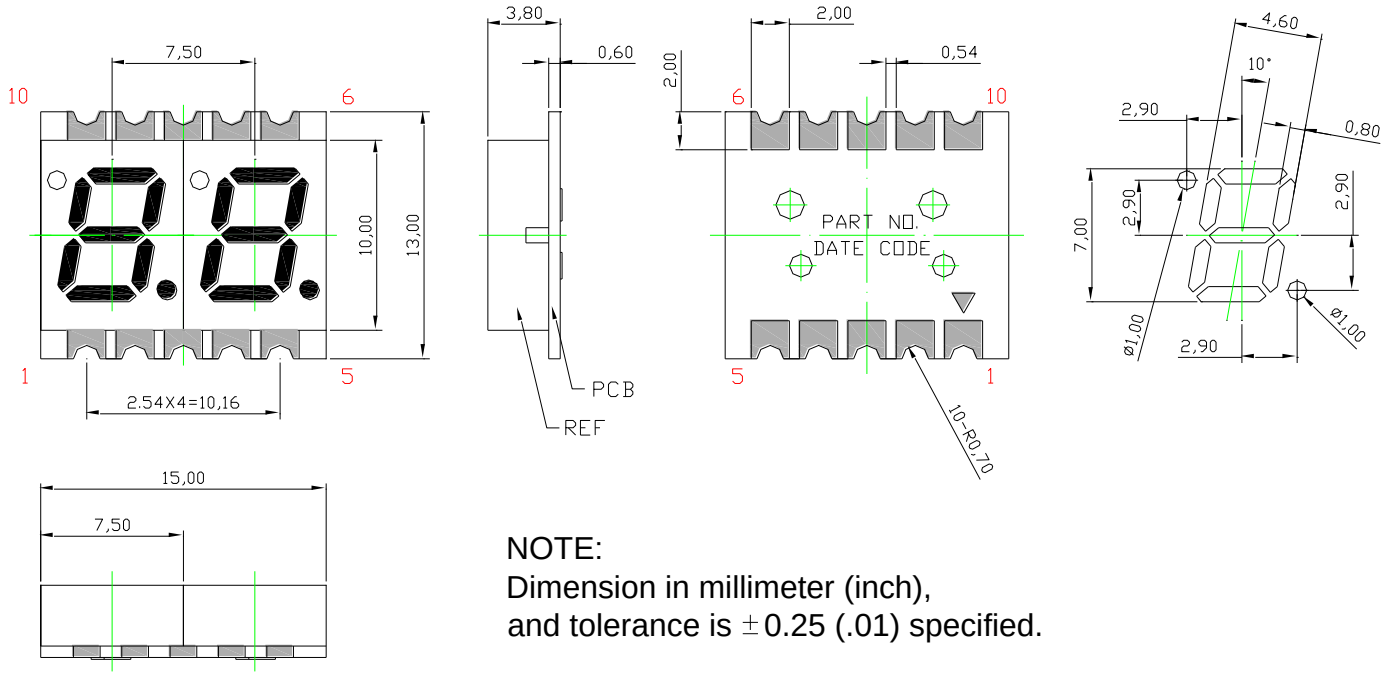
LSDD215/66F-XX

DATA SHEET

DOC.NO	:	QW0905- LSDD215/66F-XX
REV.	:	B
DATE	:	03 – Sep. – 2020

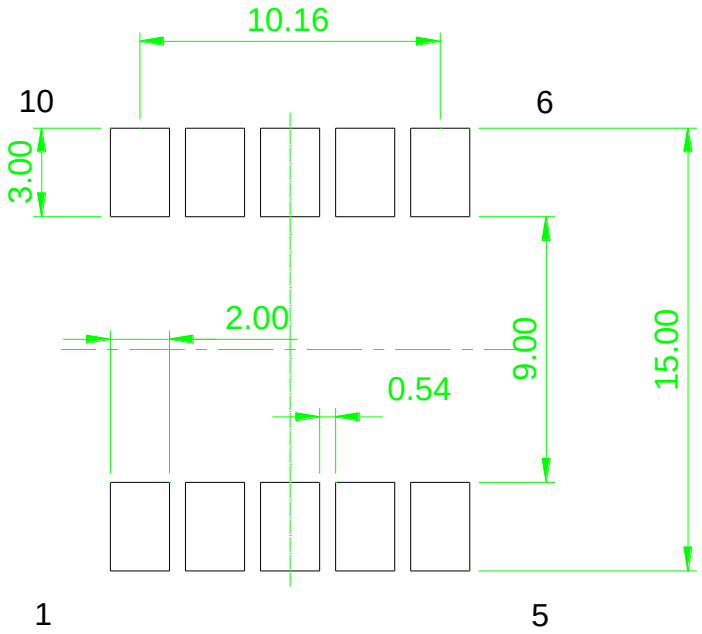
發行
立碁電子
DCC

Package Dimensions

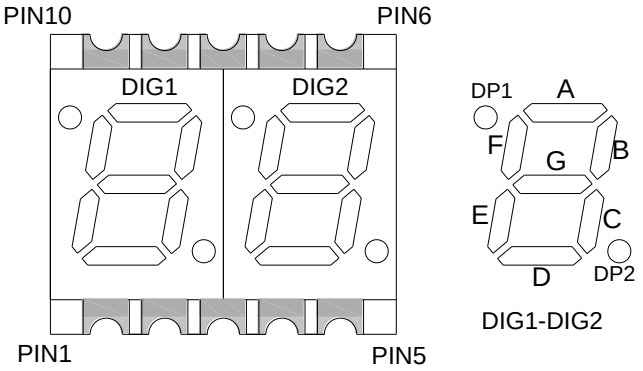


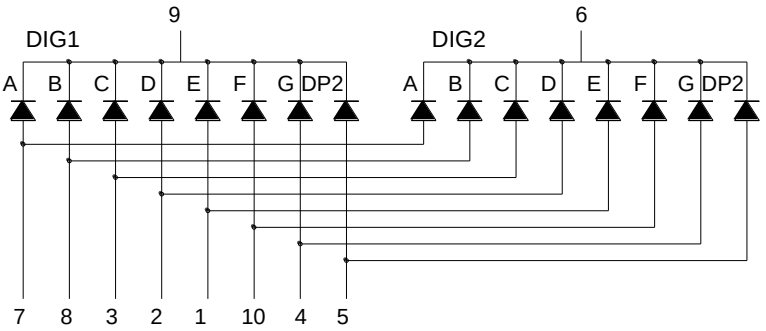
NOTE:
Dimension in millimeter (inch),
and tolerance is ±0.25 (.01) specified.

Recommended Soldering Pad Dimensions

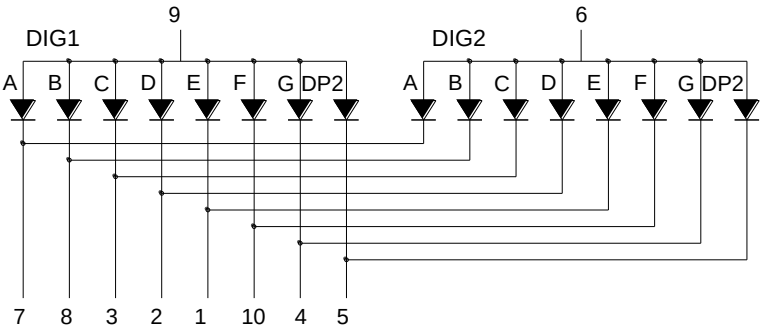


Internal Circuit Diagram





LSDD2156F-XX (Common Cathode)



LSDD2166F-XX (Common Anode)

Electrical Connection

PIN NO.	**LSDD2156F-XX**	PIN NO.	**LSDD2166F-XX**
1	Anode E	1	Cathode E
2	Anode D	2	Cathode D
3	Anode C	3	Cathode C
4	Anode G	4	Cathode G
5	Anode DP2	5	Cathode DP2
6	Common Cathode DIG2	6	Common Anode DIG2
7	Anode A	7	Cathode A
8	Anode B	8	Cathode B
9	Common Cathode DIG1	9	Common Anode DIG1
10	Anode F	10	Cathode F

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Ratings	UNIT
Power Dissipation	PD	48	mW
Peak pulse current Duty 1/10@1KHz	I_{FP}	40	mA
Forward Current Per Chip	I_F	20	mA
Reverse voltage	VR	5	V
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	10	----	55	mcd	IF=20mA
Dominant Wavelength	λ D	619	----	629	nm	IF=20mA
Spectral Line Half-Width	ΔP	----	20	----	nm	IF=20mA
Forward Voltage	VF	----	2.1	2.4	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.

Luminous Intensity Classification

BIN CODE	Iv(mcd) at 20mA	
	Min	Max
K	10	25
L	25.1	40
M	40.1	55

Dominant Wavelength Classification

BIN CODE	Iv(nm) at 20mA	
	Min	Max
1	619	622
2	622.1	626
3	626.1	629

Typical Electro-Optical Characteristics Curve

(25℃ Free Air Temperature Unless Otherwise Specified)

6F: Super Bright RED ((AlGaInP/GaAs) CURVE

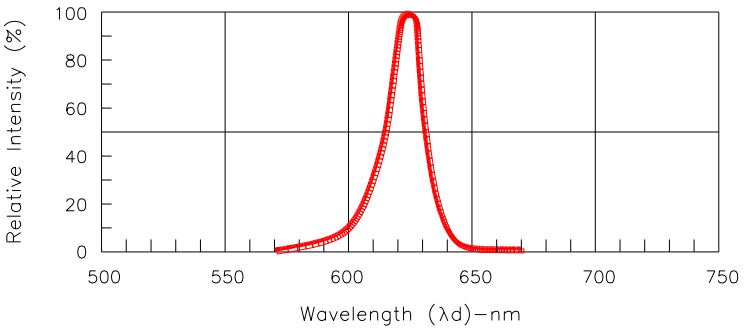


Fig.1—Relative Intensity VS. Wavelength

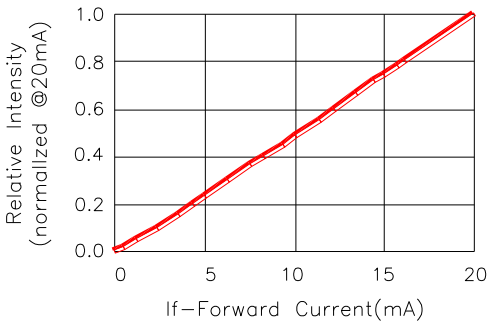


Fig.2—Relative Luminous Intensity vs. Forward Current

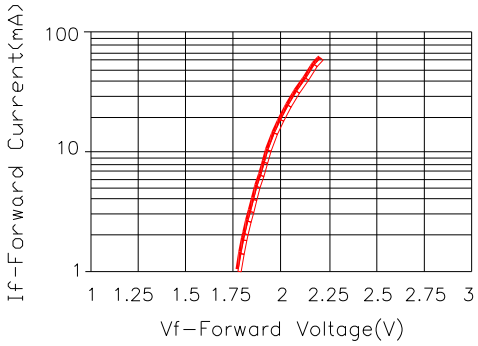


Fig.3—Forward Current vs. Forward Voltage

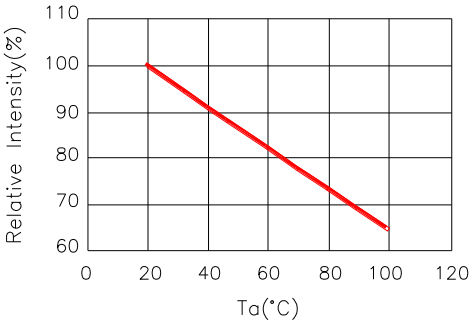


Fig.4—Relative Intensity(@20mA) vs. Ambient Temperature

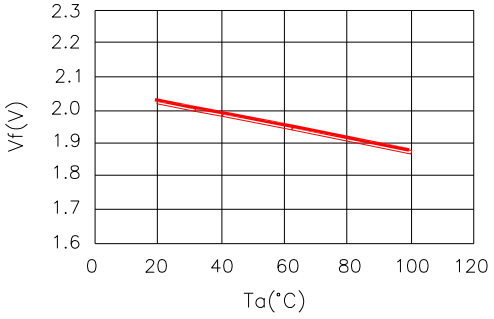


Fig.5—Forward Voltage(@20mA) vs. Ambient Temperature

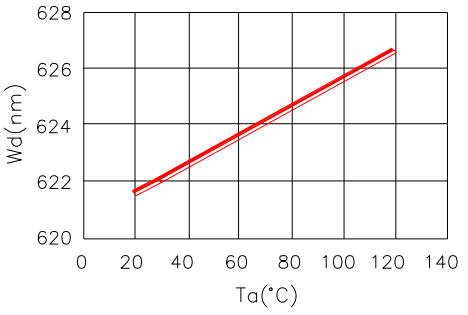


Fig.6—Dominant Wavelength(@20mA) VS. Ambient Temperature

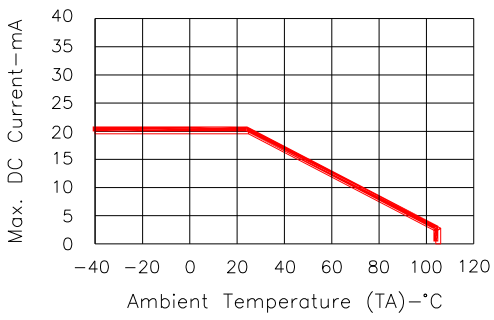
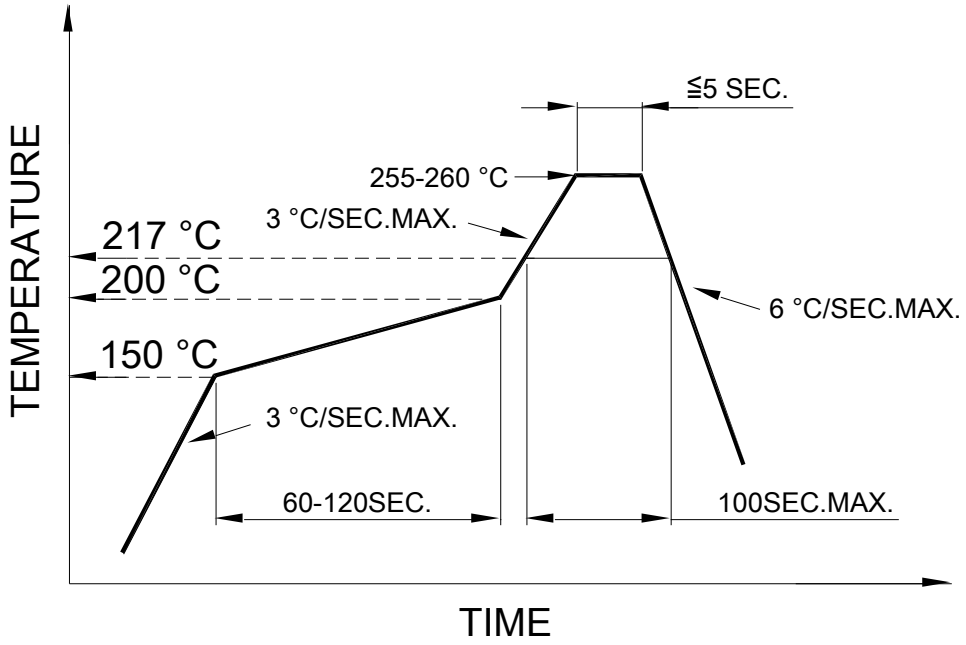


Fig.7—Max. Allowable DC Current VS. Ambient Temperature

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.

STORAGED CONDITION

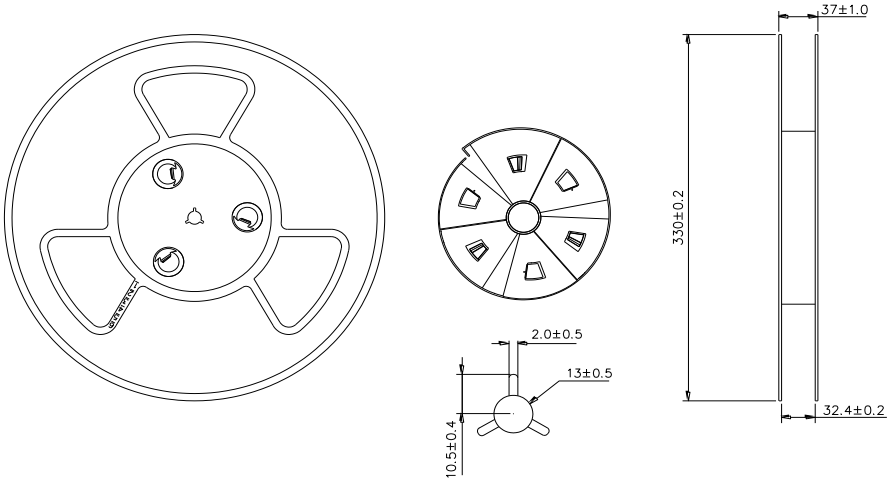
In factory original sealed bag package

TEMPERATURE CONDITION	HUMIDITY CONDITION
5°C ~ 30°C	Below 60%RH

After opened and not in factory original sealed bag package

TEMPERATURE CONDITION	HUMIDITY CONDITION	STORAGE TIME
5°C ~ 30°C	Below 60%RH	Within 4 weeks (MSL as level 2a)

REEL DIMENSIONS



PACKING & LABEL SPECIFICATIONS