

SINGLE DIGIT SMD DISPLAY(0.28")

LSSD215/6DGM-XX

DATA SHEET

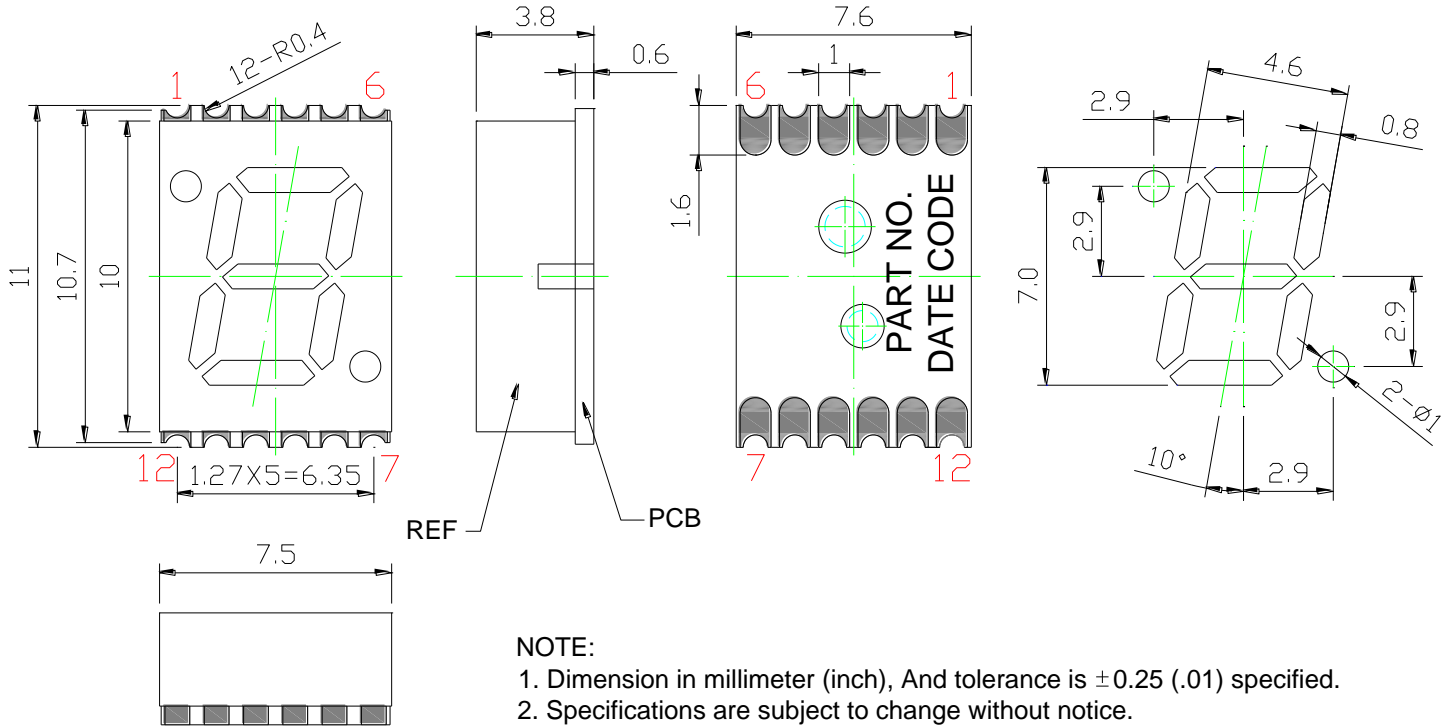
DOC.NO : QW0905- LSSD215/6DGM-XX

REV. : C

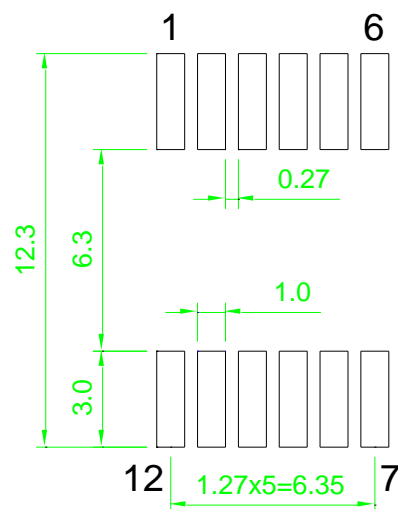
DATE : 06 – Jan. - 2020



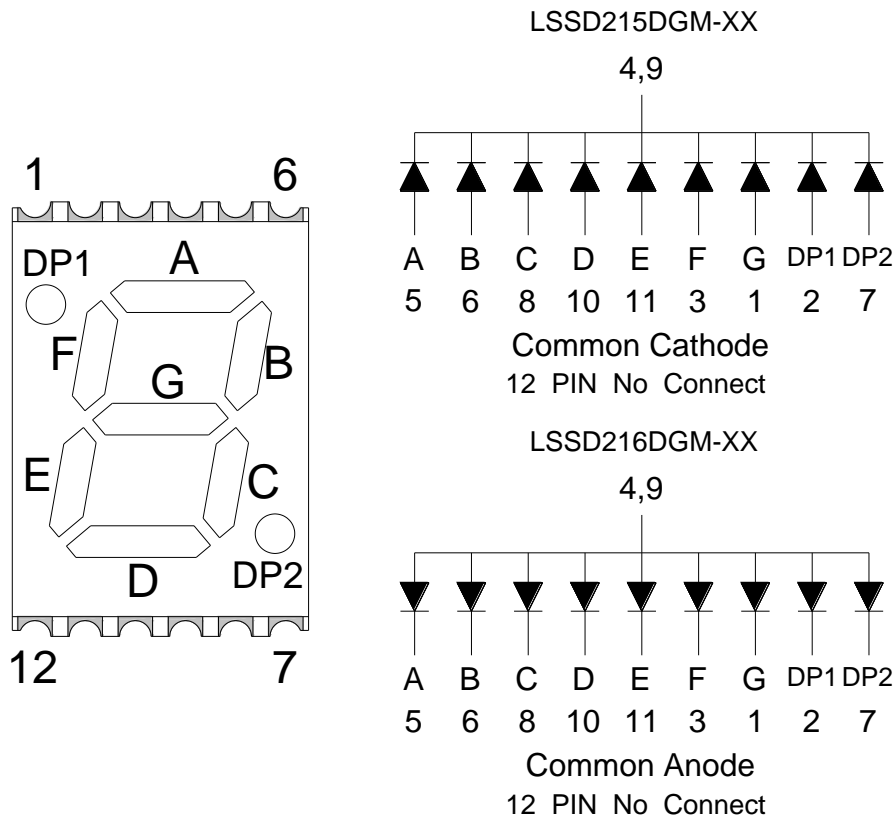
Package Dimensions



Recommended Soldering Pad Dimensions



Internal Circuit Diagram



Electrical Connection

PIN NO.	LSSD215DGM-XX	PIN NO.	LSSD216DGM-XX
1	Anode G	1	Cathode G
2	Anode DP1	2	Cathode DP1
3	Anode F	3	Cathode F
4	Common Cathode	4	Common Anode
5	Anode A	5	Cathode A
6	Anode B	6	Cathode B
7	Anode DP	7	Cathode DP
8	Anode C	8	Cathode C
9	Common Cathode	9	Common Anode
10	Anode D	10	Cathode D
11	Anode E	11	Cathode E
12	No Connect	12	No Connect

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Ratings	UNIT
Power Dissipation	PD	66	mW
Peak current (duty cycle 1/10, 1kHz)	I _{FP}	60	mA
Forward Current Per Chip	I _F	20	mA
Storage Temperature	T _{stg}	-40 ~ +85	°C
Operating Temperature	T _{opr}	-40 ~ +85	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	IV	140	----	275	mcd	IF=20mA
Dominant Wavelength	λ D	515	----	530	nm	IF=20mA
Spectral Line Half-Width	Δ P	----	30	----	nm	IF=20mA
Forward Voltage	VF	----	3.0	3.3	V	IF=20mA
Reverse Current	I _r	----	----	10	μ A	VR=5V

Note : 1.The forward voltage data did not including $\pm 0.1V$ testing tolerance.

2.The luminous intensity data did not including $\pm 15\%$ testing tolerance.

Luminous Intensity Classification

BIN CODE	Iv(mcd) at 20mA	
	Min	Max
R	140	185
S	185.1	230
T	230.1	275

Dominant Wavelength Classification

BIN CODE	Wd(nm) at 20mA	
	Min	Max
1	515	520
2	520.1	525
3	525.1	530

Typical Electro-Optical Characteristics Curve

(25 °C Free Air Temperature Unless Otherwise Specified)

DGM: PURE GREEN (InGaN/GaN) CURVE

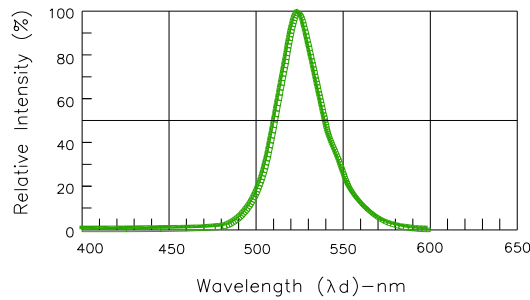


Fig.-1 Relative Intensity VS. Wavelength

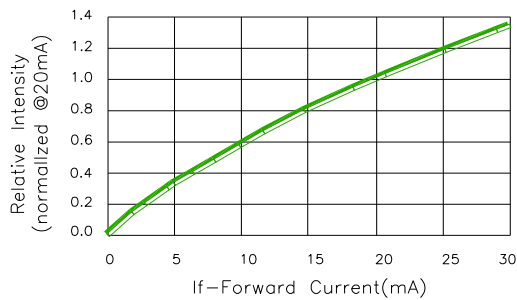


Fig.2-Relative Luminous Intensity vs. Forward Current

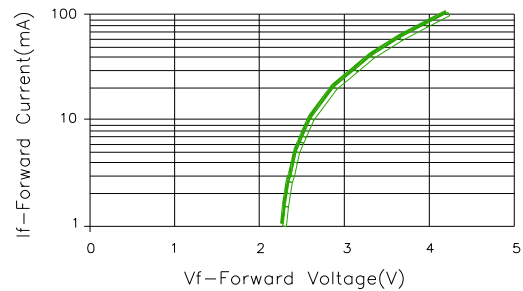


Fig.3-Forward Current vs. Forward Voltage

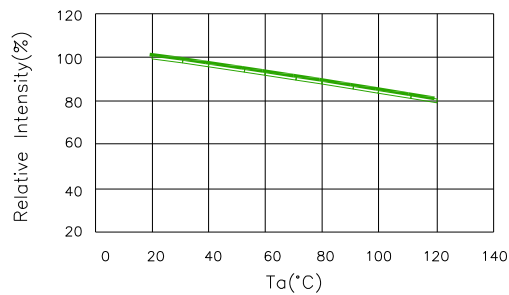


Fig.4-Relative Intensity(@20mA)VS. Ambient Temperature

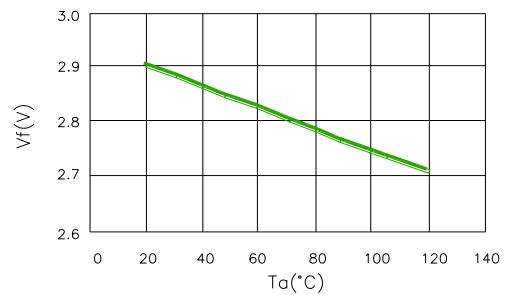


Fig.5-Forward Voltage(@20mA)VS. Ambient Temperature

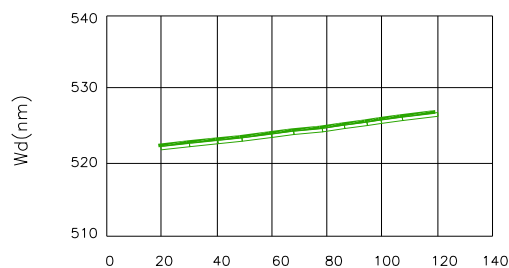


Fig.6-Dominant Wavelength(@20mA)
VS. Ambient Temperature

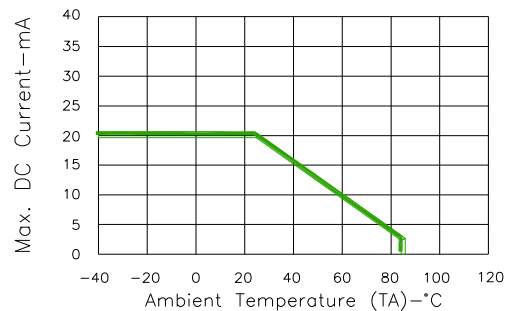
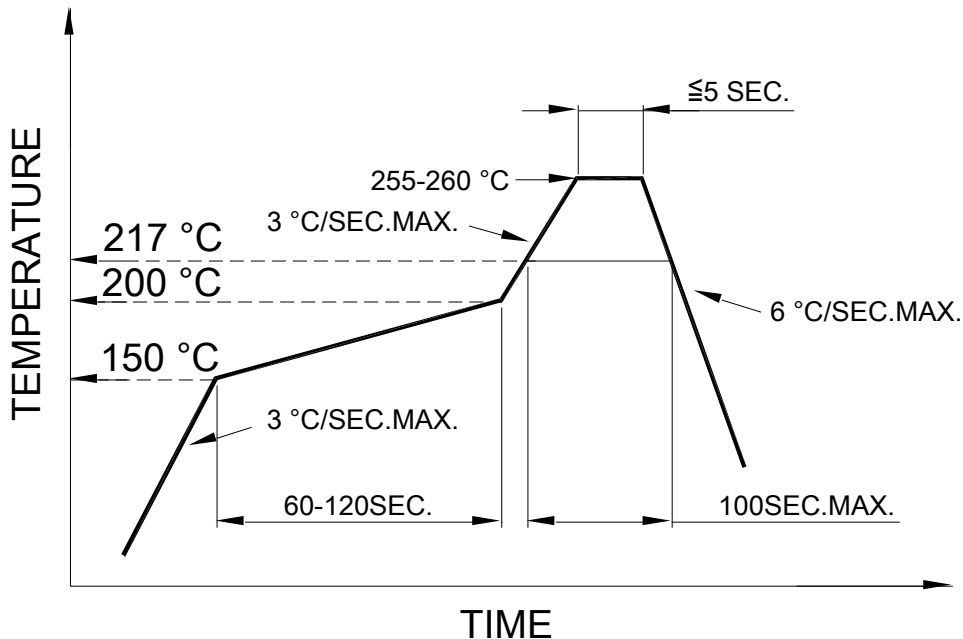


Fig.7-Max. Allowable DC Current
VS. Ambient Temperature

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 °C.

The head of soldering iron cannot touch copper foil.

STORAGED CONDITION

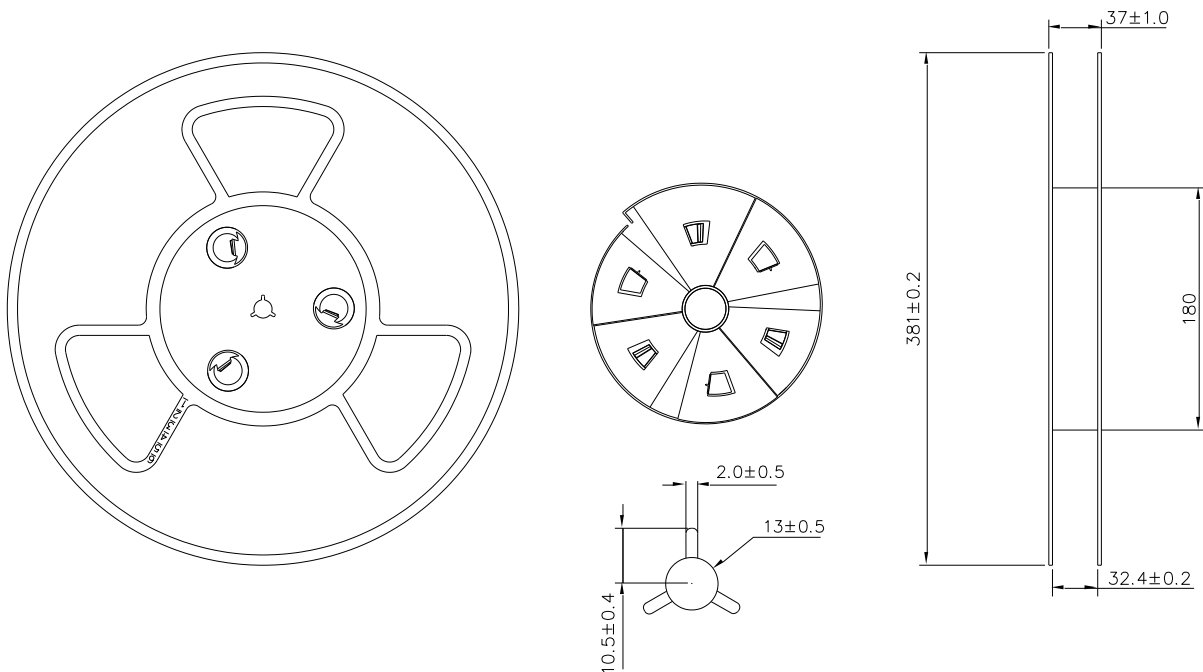
In factory original sealed bag package

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

