QUELIGHTING

Sustainable Lighting Solution

QLCDDD201YG-315

(0.2 inch SMD Digit Display)

■ Product Outline:

QLCDDD201XX series for these 0.20” dual digit seven segments displays are made with white segment and grey surface. The viewing distance is up to seven meters

Features:

- 0.20 inch(5.08mm) Digit height.
- Case mold type.
- Excellent character appearance.
- Surface brush: Gray；Colloidal color: White.
- Wide viewing angle.

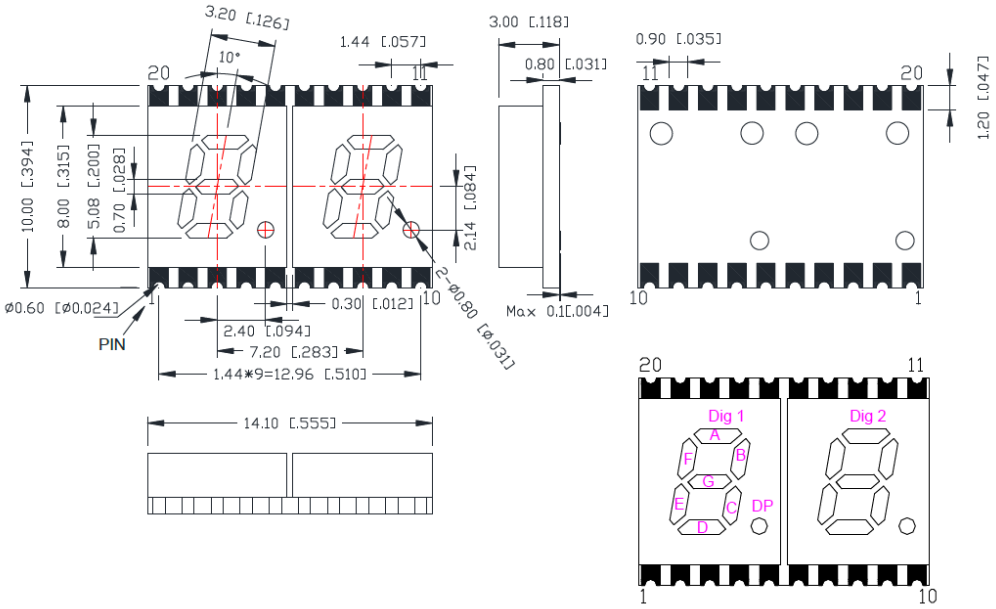
Application:

- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Compliance and Certification:

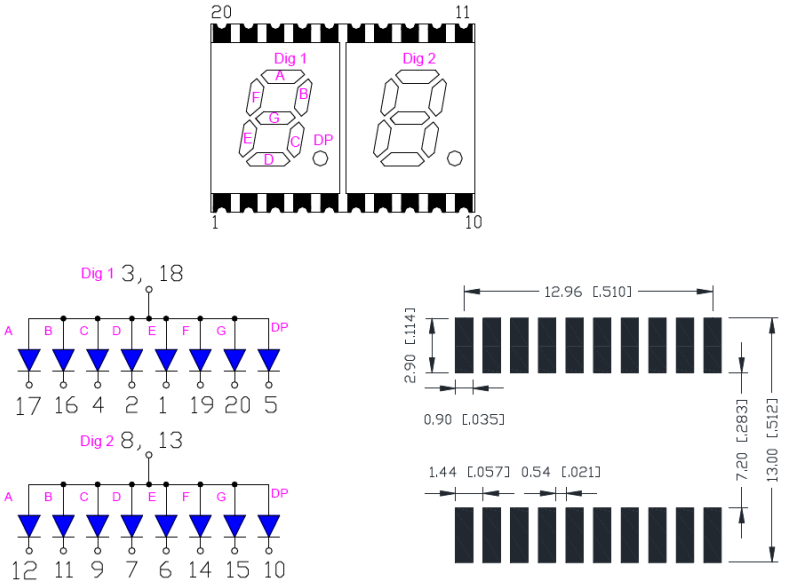
■ Mechanical Property:

(Dimension)



*Tolerance is ±0.25mm unless otherwise specified , Unit:mm

■ Pin Configuration:



■ Optical Characteristics

Ta=25℃

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Dot	V_F	IF=20mA		2.0	2.6	V
Luminous Intensity Per Dot	I_V	IF=20mA		3		mcd
Dominant Wavelength	λ_D	IF=20mA		570		nm
Spectral Line Half-Width	$\Delta\lambda$	IF=20mA		30		nm
Reverse Current	I_R	V_R=5V			50	μA

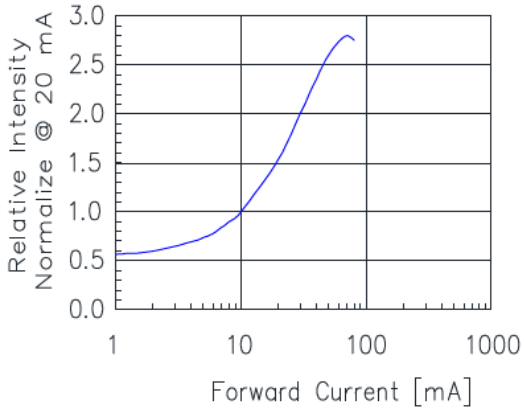
*Radiant Intensity Measurement allowance is ±15%
** Forward voltage Measurement allowance is ±0.1V
*** Peak emission wavelength Measurement allowance is ±1nm

■ ABSOLUTE MAXIMUM RATINGS

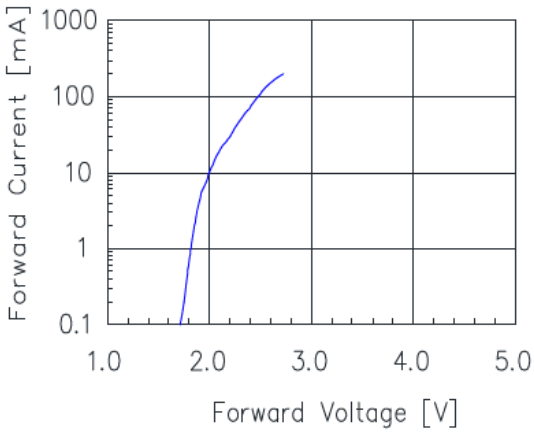
Ta=25℃

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	30	mA
Power dissipation	Pd	52	mW
Derating Liner from25℃ Per Dice		0.33	mA/℃
Continuous Forward Current Per Dice	IAF	20	mA
Peak Current Per Dice (Duty Cycle 1/10, 1kHz)	IPF	100	mA
Reverse Voltage Per Dice	VR	5	V
Operating Temperature	Topr	-35 to +100	℃
Storage Temperature	Tstg	-35 to +85	℃
Solder temperature 1/16 inch below seating plane for 3 seconds at 260℃			

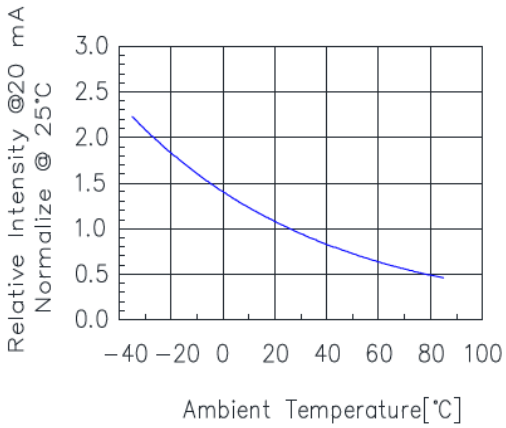
■ Characteristic Curves



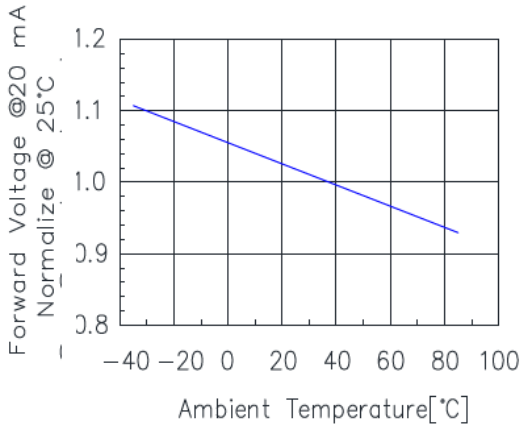
luminous intensity vs. Forward current



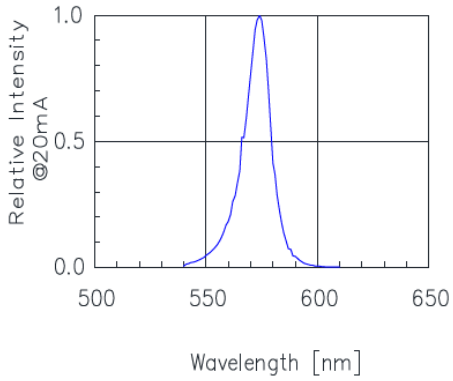
Forward Voltage vs. Forward Current



Relative Luminous Intensity vs Ambient Temperature



Maximum Forward Voltage vs Ambient Temperature



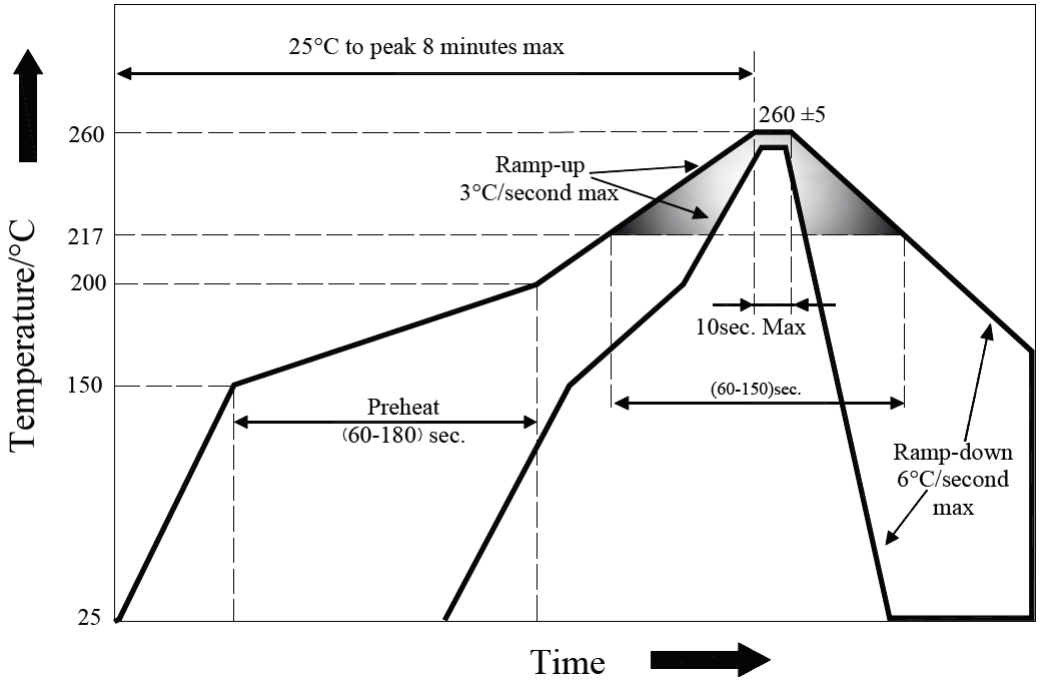
■ Reliability test:

No	Item	Condition	Time/Cycle	Criteria	Ac / Re	Sample size
1	Soldering Heat Test	260℃	5 sec	Open / Short	0 / 1	20 pcs
2	Thermal Shock	0 (5min) ℃ ~100 (5min) ℃	20 cycle	Open / Short	0 / 1	20 pcs
3	High Temp. Storage	100℃	1000 Hrs	Open / Short	0 / 1	20 pcs
4	Low Temp. Storage	-40℃	1000 Hrs	Open / Short	0 / 1	20 pcs
5	Temperature Cycle Test	-40 ~85 ℃	100 Cycles , 200Hrs	Open / Short	0 / 1	20 pcs
6	High Temp. High Humidity Test	60 , 90% RH ℃	1000 Hrs	Open / Short	0 / 1	20 pcs
7	DC Operation Life Test	IF=20mA	1000 Hrs	Power decay	≦30%	20 pcs

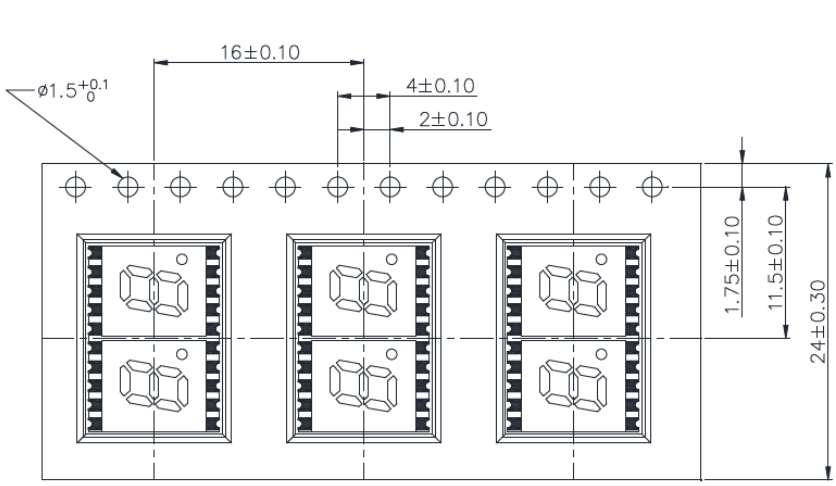
■ Solder Profile:

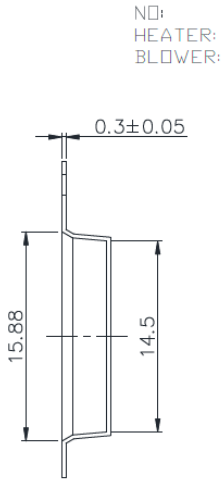
-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

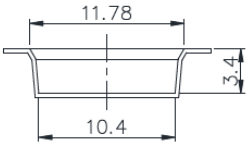
Shape	Lead Frame Type
Hand soldering	1.Temp.at tip of iron : 300 °C max.(30W max.) 2.Soldering time : 3 sec max. 3.Distance : 3 mm MIN (from solder joint to case)
DIP soldering	1.Preheat temp : 100 °C max , 60 sec max. 2.Bath temp : 260 °C max. 3.Bath time : 3 sec max. 4.Distance : 3 mm MIN (From solder joint to case)
Recommended soldering profile	1.Preheat temp. : 100 °C , 50 sec max. 2.Peak temp. : 260 °C max. 3.Peak time : 3 sec max. 4.Duration above: 200°C，3 sec max.

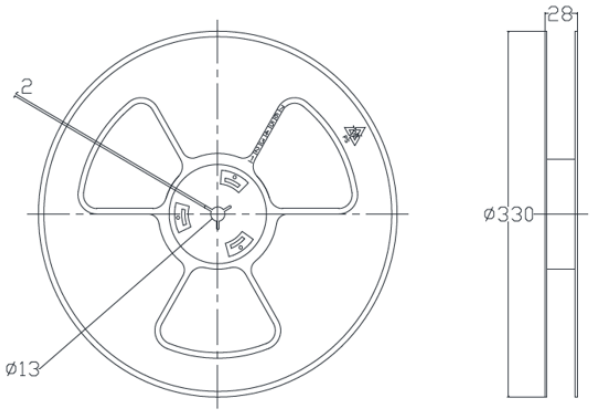


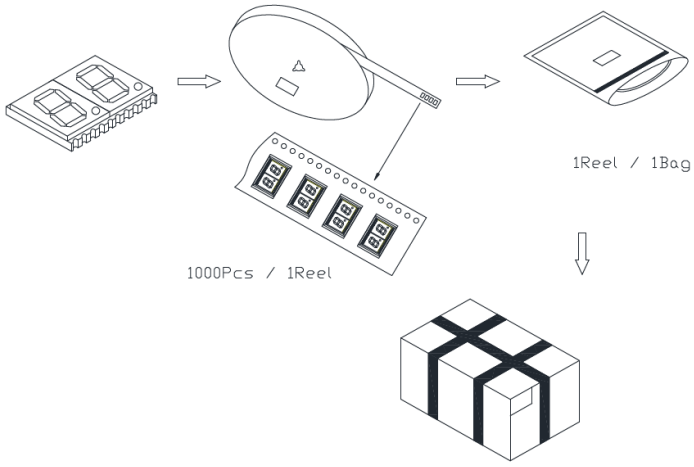
■ Taping & Packing



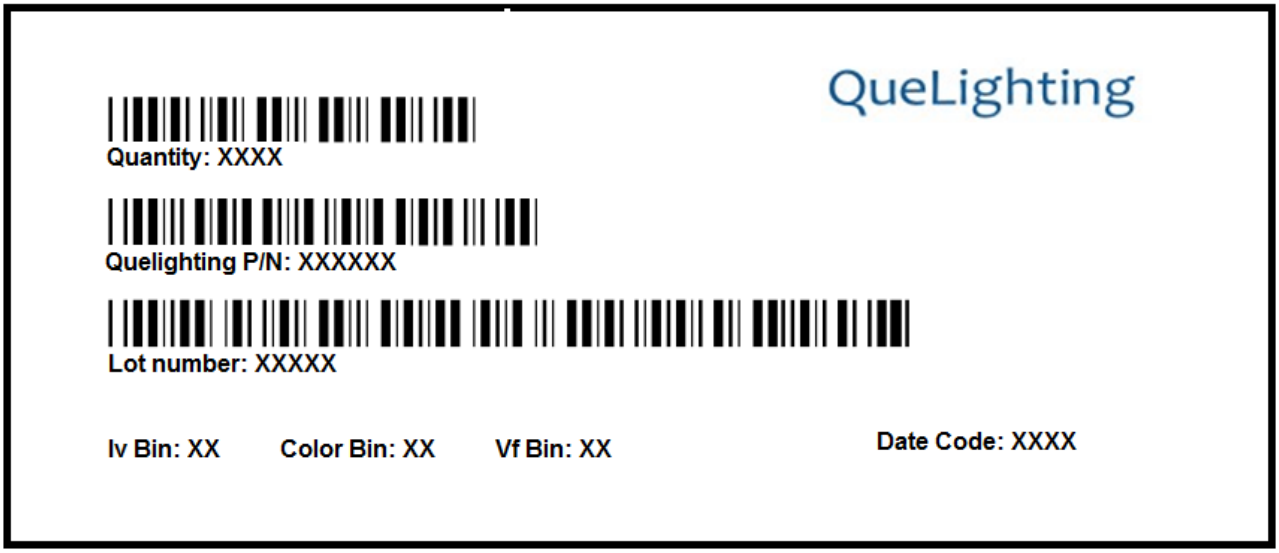








Labeling



Ordering Information:

Part #	Multiple Quantities	Quantity per Bag
QLCDDD201YG-315		1000

■ Revision History:

Revision Date:	Changes:	Version #:
06--2021	Initial release	1.0