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QT-Brightek SMD Display Series

0.56" Single Digit Display

Part No.: QBSS56ZXX

XX= Color

Z= 1: Common Cathode

Z = 0: Common Anode

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Introduction

Feature:

- 0.56" Single digit seven segments display
- Low power consumption
- Packed in reel
- White segment and grey surface
- XX = color code
- Z=1: Common Cathode or 0: Common Anode

Description:

These 0.56" Single digit seven segments displays are made with white segment and grey surface. The viewing distance is up to seven meters.

Application:

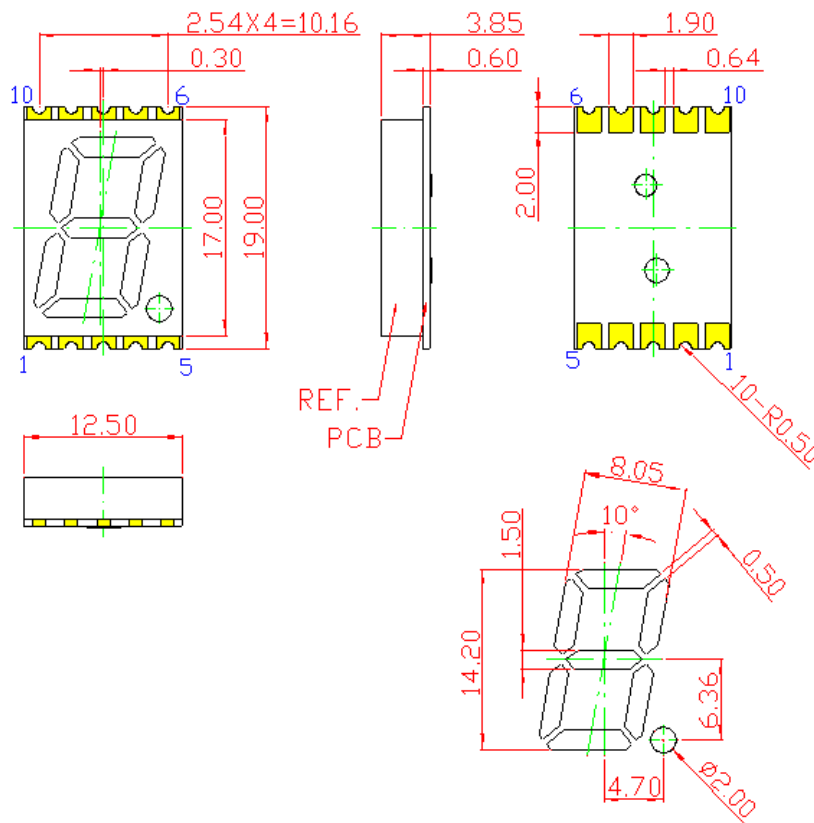
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.25mm

Electrical / Optical Characteristic: (Ta=25 °C)

Product		Material	Color	I _F (mA)	V _F (V)		λ _d (nm)			I _V (mcd)
CC	CA				Typ.	Max.	Min.	Typ.	Max.	Typ.
QBSS561R	QBSS560R	AllnGaP	Red	20	2.0	2.6	--	624	--	40
QBSS561S	QBSS560S	AllnGaP	Deep Red	20	2.0	2.6	--	640	--	10
QBSS561Y	QBSS560Y	AllnGaP	Yellow	20	2.0	2.6	--	590	--	45
QBSS561O	QBSS560O	AllnGaP	Orange	20	2.0	2.6	--	606	--	45
QBSS561AG	QBSS560AG	AllnGaP	Yellow Green	20	2.1	2.6	--	571	--	15
QBSS561IG	QBSS560IG	InGaN	True Green	20	3.0	4.0	--	525	--	200
QBSS561IB	QBSS560IB	InGaN	Blue	20	3.2	4.0	--	470	--	60

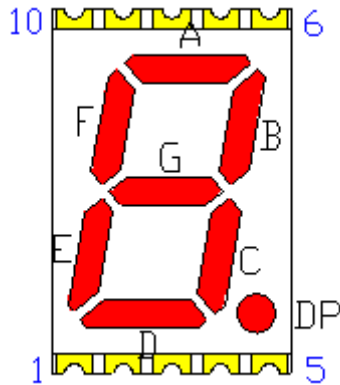
Absolute Maximum Rating

Material	P _d (mW)	Derating linear from 25°C per dice (mA/°C)	I _F (mA)	I _{PF} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AllnGaP	70	0.28	25	90	5	-40 to +105	-40 to +105	260
InGaN	120	0.3	30	100	5	-40 to +105	-40 to +105	260

*Duty 1/10 @ 1KHz

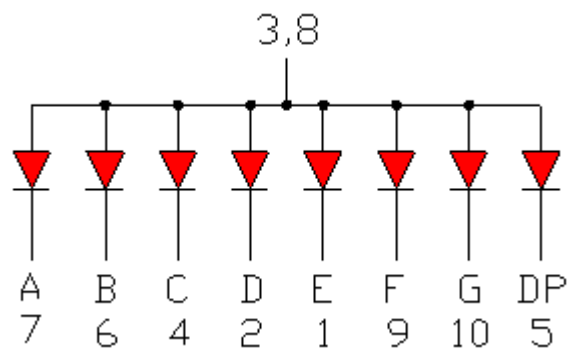
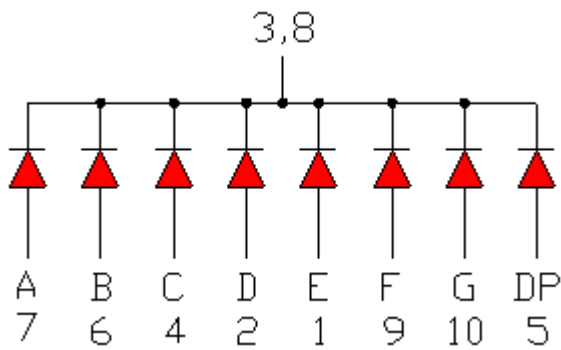
**IR Reflow for no more than 5 sec @ 260 °C

Pin Configuration

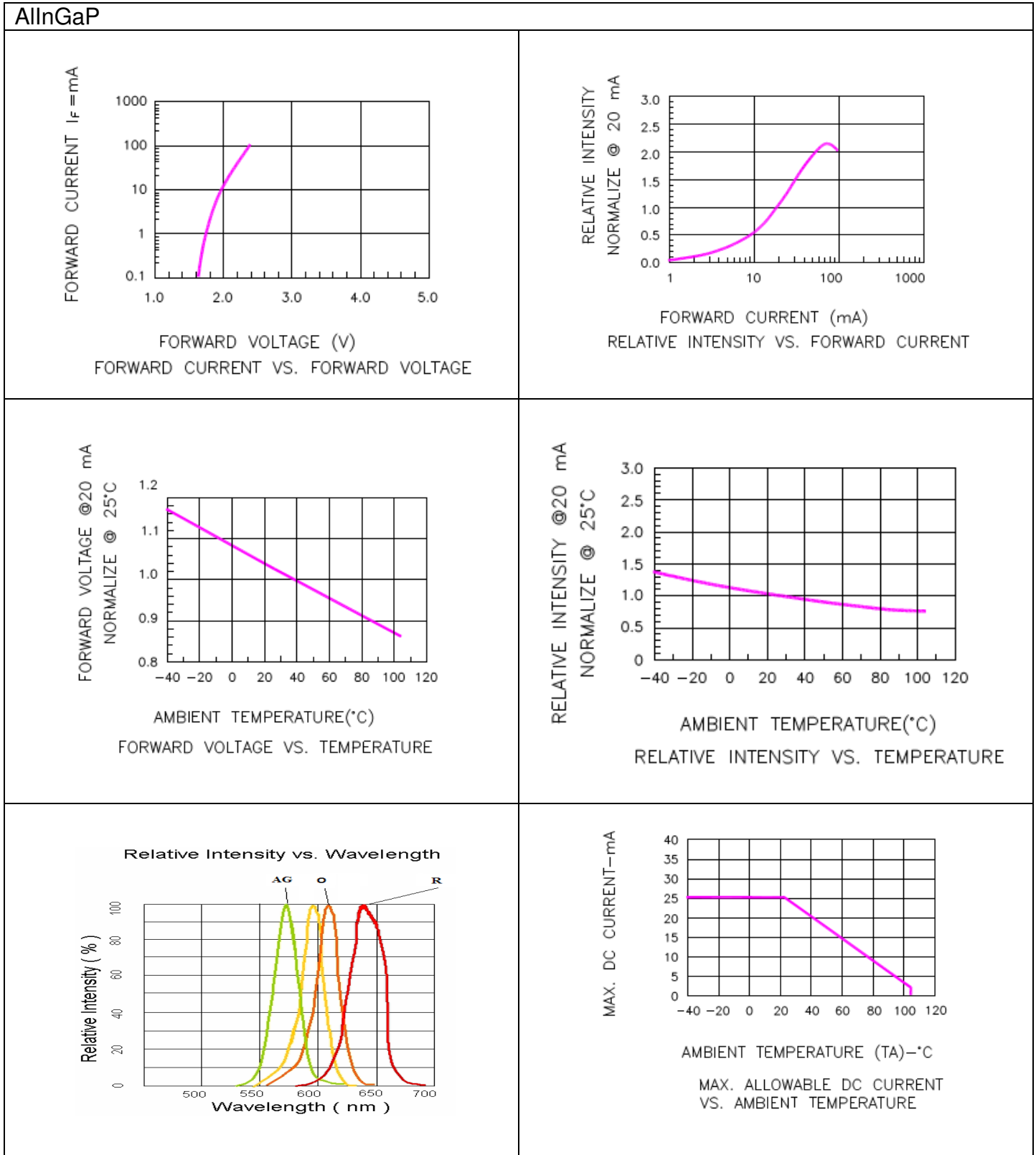


CC

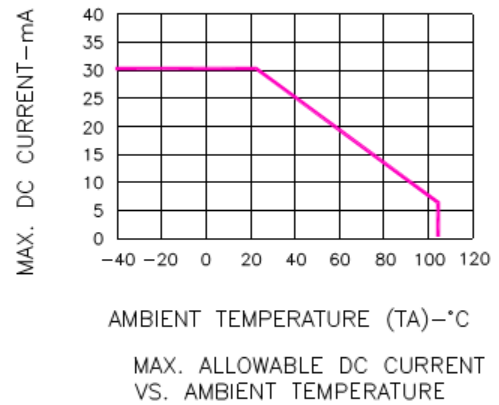
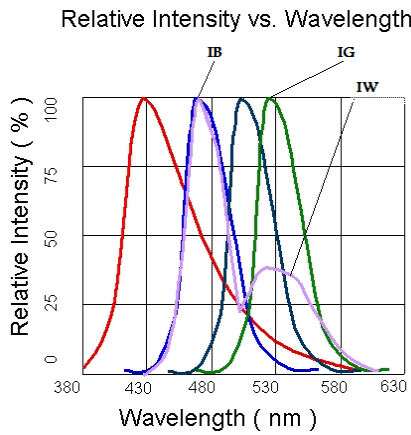
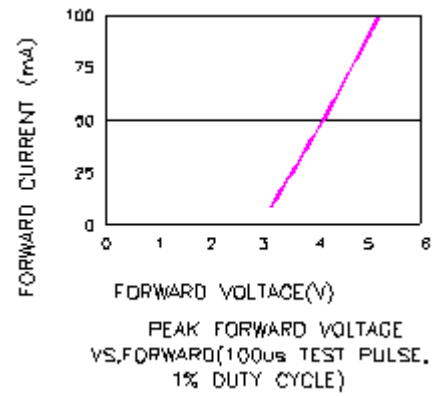
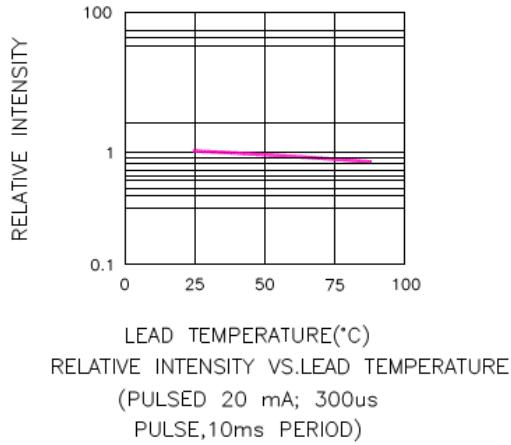
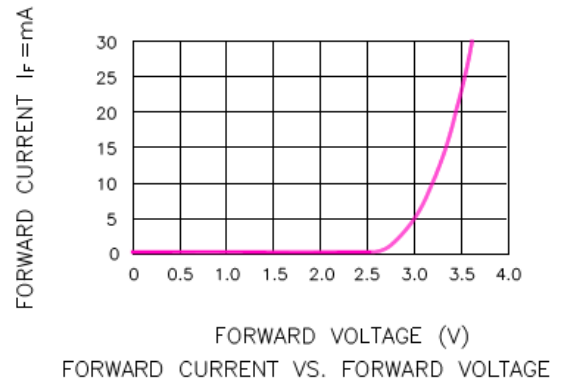
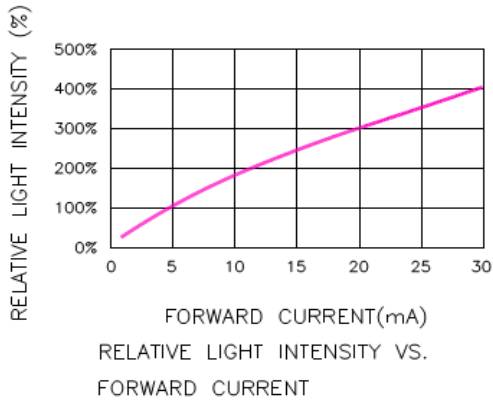
CA



Characteristic Curves

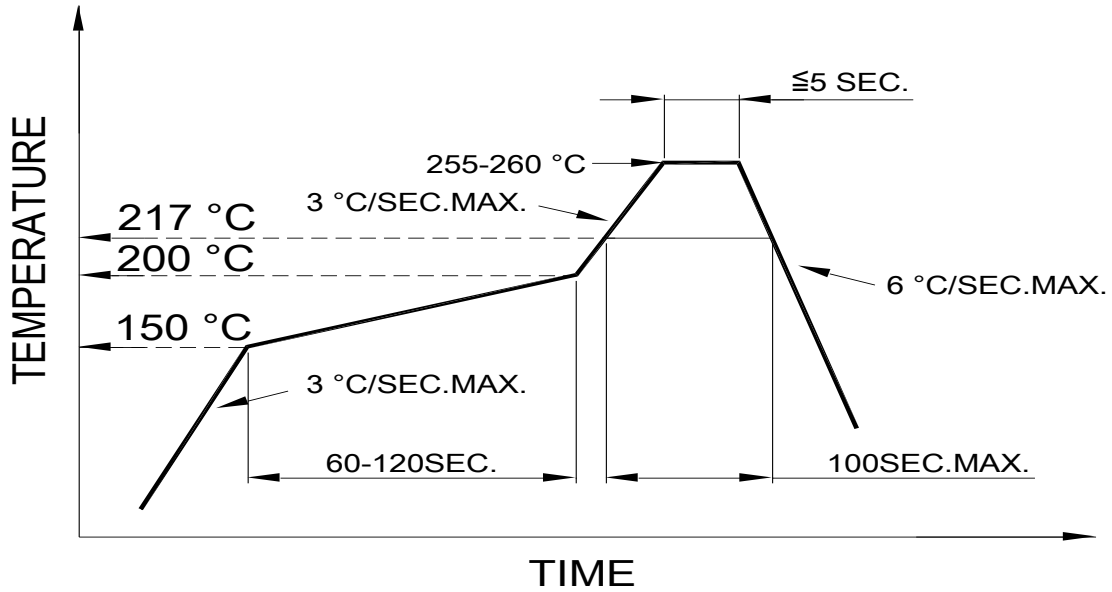


InGaN

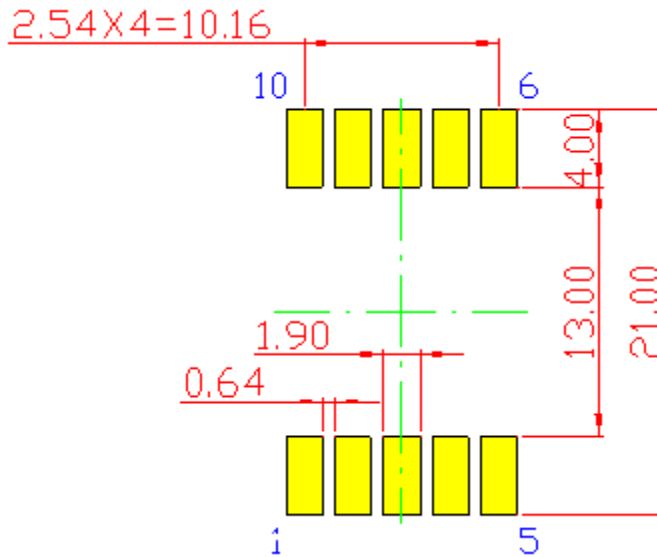


Solder Profile & Footprint

Pb free reflow soldering Profile



Recommended Pad Layout



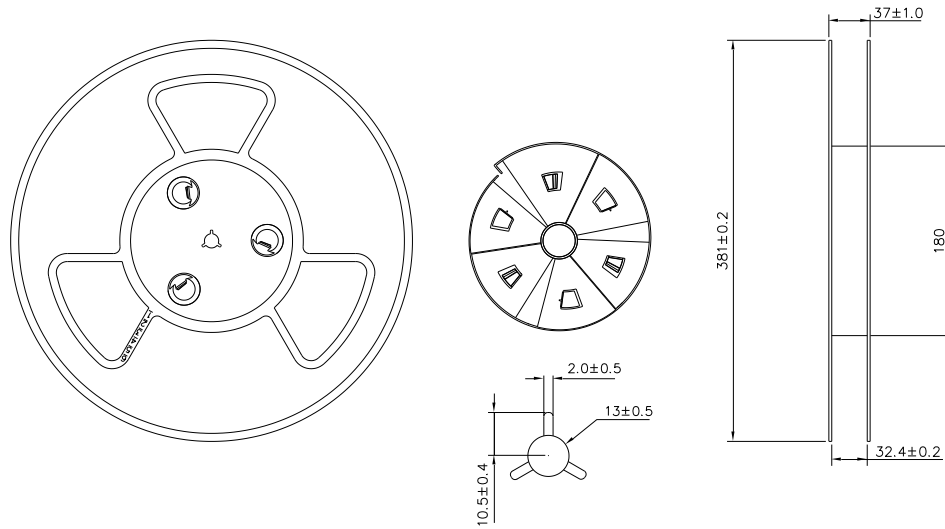
Units: mm

Tolerance: ±0.25mm

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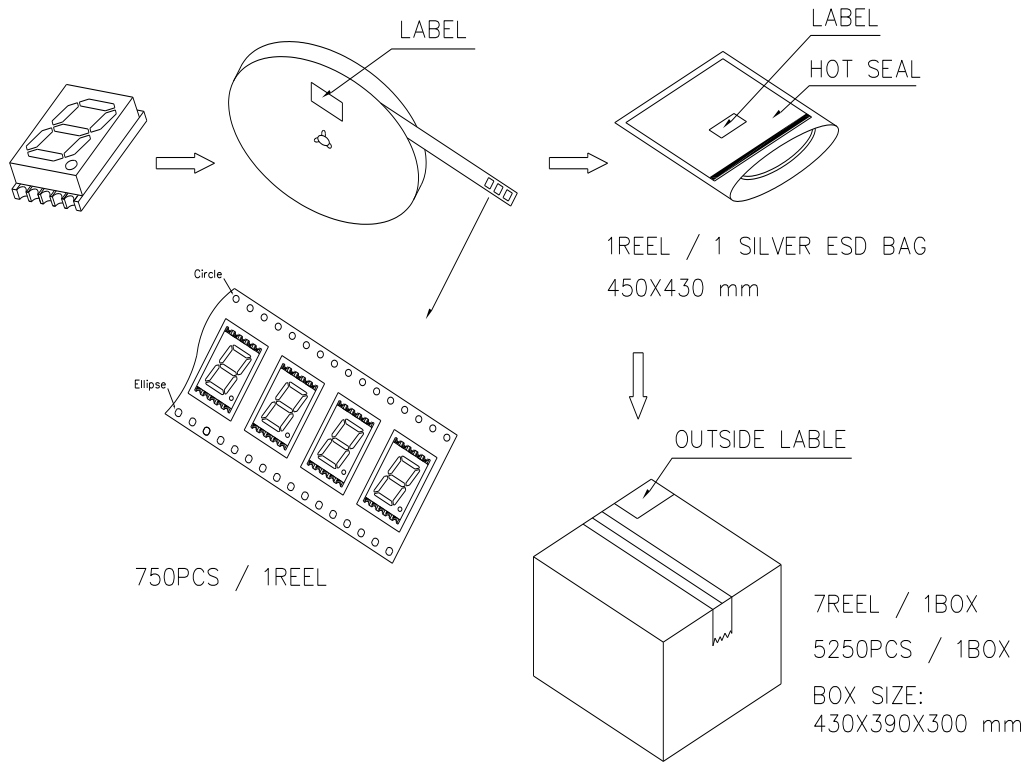
Packing & Labeling

Reel Dimensions:



Unit: mm

Packing Method:



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Ordering Information

Product		Orderable Part #		Spec Range	Quantity per Reel
CC	CA	CC	CA		
QBSS561R	QBSS560R	QBSS561R	QBSS560R	Iv=40mcd typ. @ I _F =20mA / λ _D :624nm typ.	750
QBSS561S	QBSS560S	QBSS561S	QBSS560S	Iv=10mcd typ. @ I _F =20mA / λ _D :640nm typ.	750
QBSS561Y	QBSS560Y	QBSS561Y	QBSS560Y	Iv=45mcd typ. @ I _F =20mA / λ _D :590nm typ.	750
QBSS561O	QBSS560O	QBSS561O	QBSS560O	Iv=45mcd typ. @ I _F =20mA / λ _D :610nm typ.	750
QBSS561AG	QBSS560AG	QBSS561AG	QBSS560AG	Iv=15mcd typ. @ I _F =20mA / λ _D :571nm typ.	750
QBSS561IG	QBSS560IG	QBSS561IG	QBSS560IG	Iv=200mcd typ. @ I _F =20mA / λ _D :525nm typ.	750
QBSS561IB	QBSS560IB	QBSS561IB	QBSS560IB	Iv=60mcd typ. @ I _F =20mA / λ _D :470nm typ.	750

Revision History

Description:	Revision #	Revision Date
New Release of QBSS56ZXX	V1.0	06/24/2011
Amend format and optical spec	V1.1	01/20/2014
Add Packing spec	V1.2	08/27/2015
Update dimension drawing and brightness	V1.3	10/29/2015

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