

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:

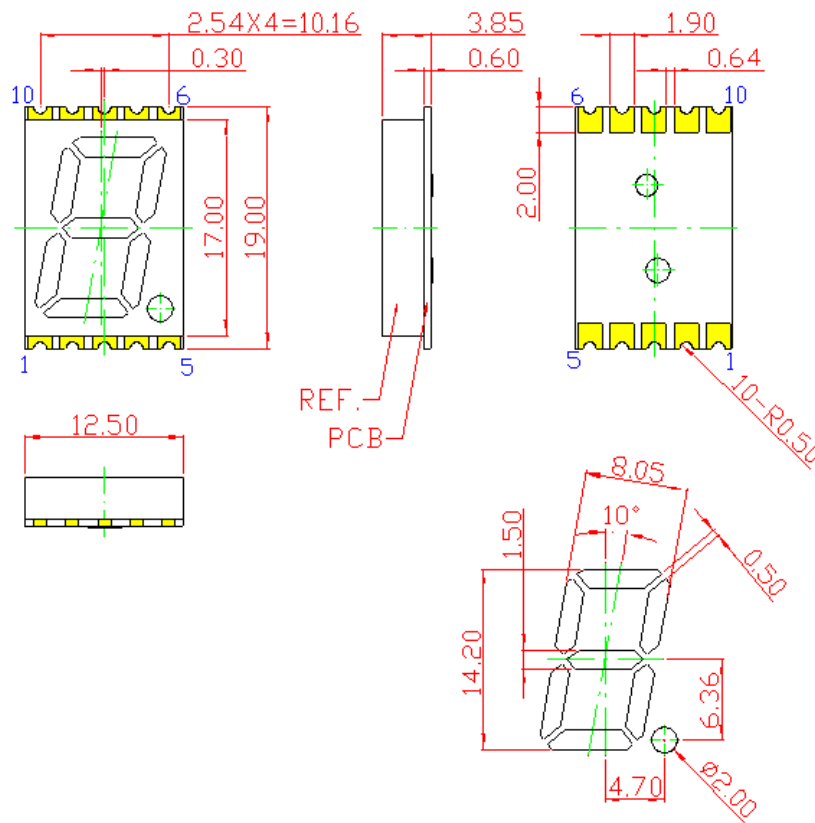
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

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

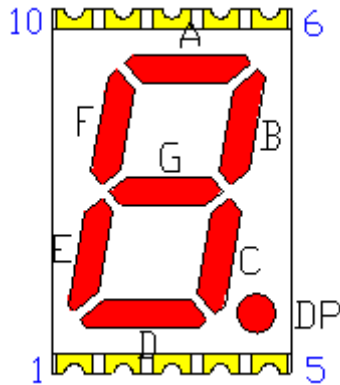
Absolute Maximum Rating

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

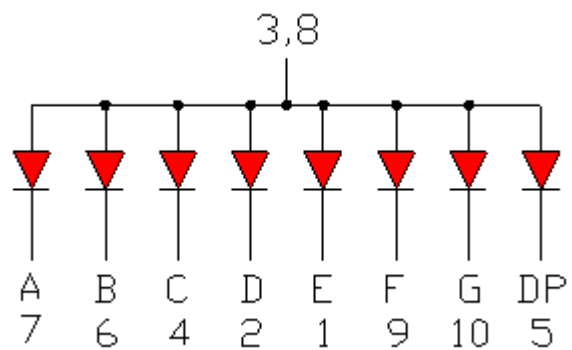
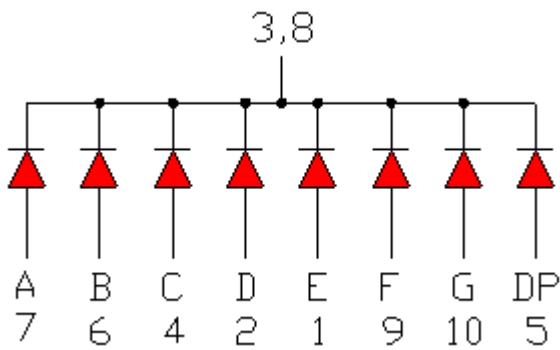
**IR Reflow for no more than 5 sec @ 260 °C

Pin Configuration



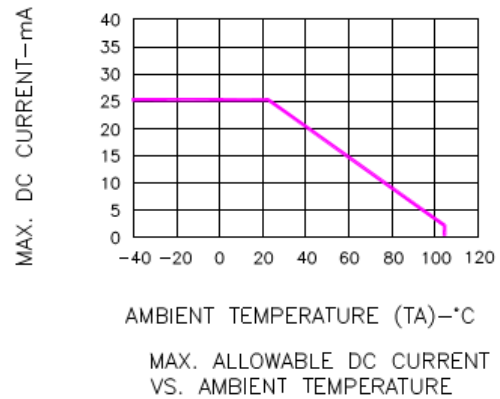
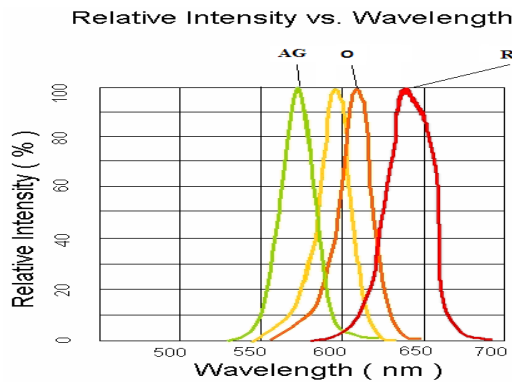
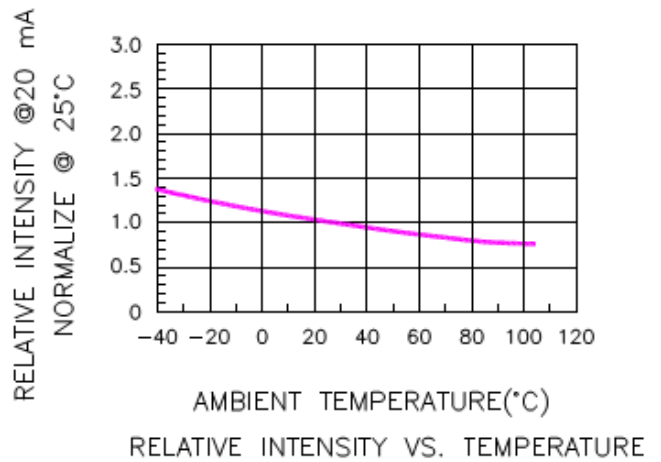
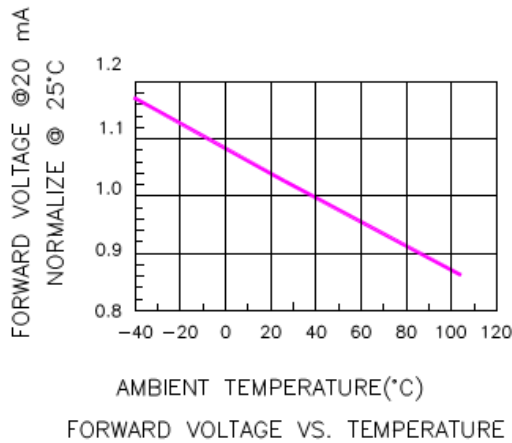
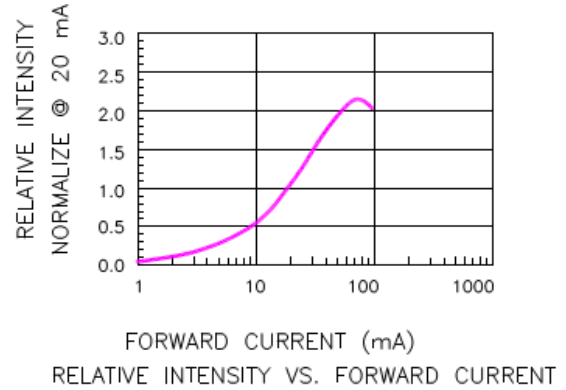
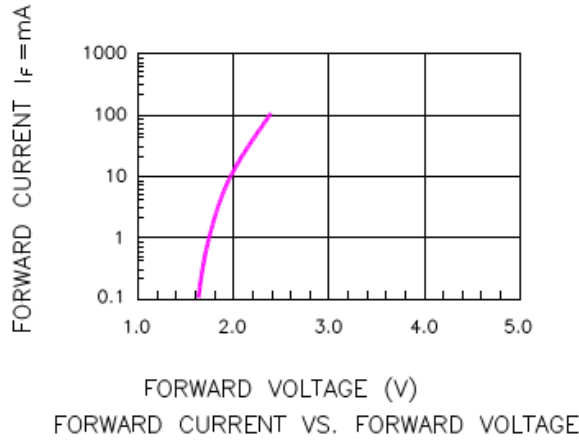
CC

CA

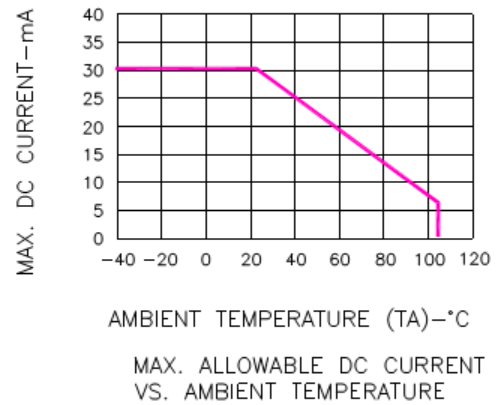
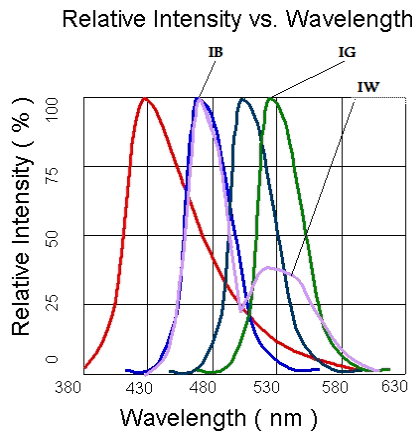
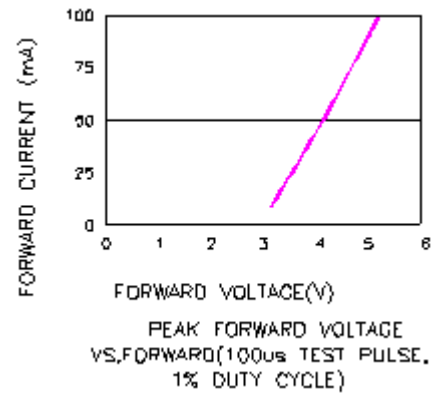
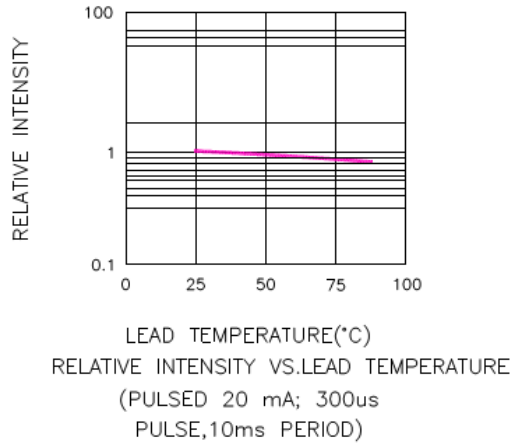
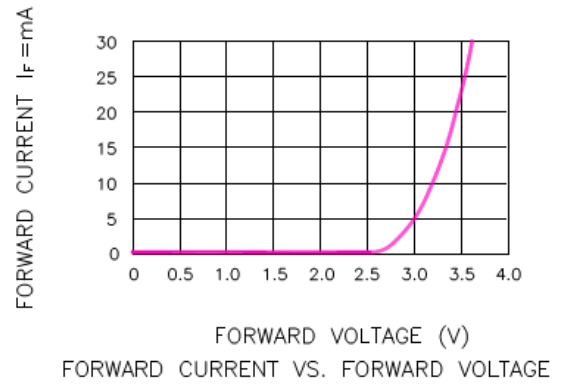
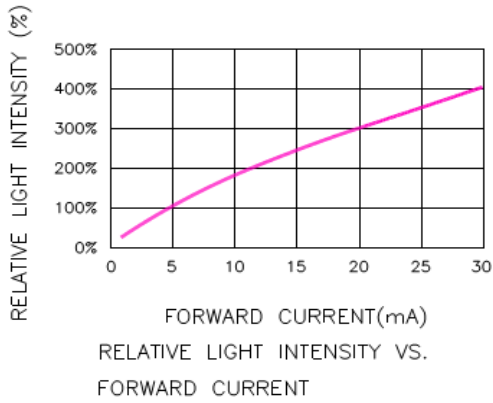


Characteristic Curves

AllnGaP

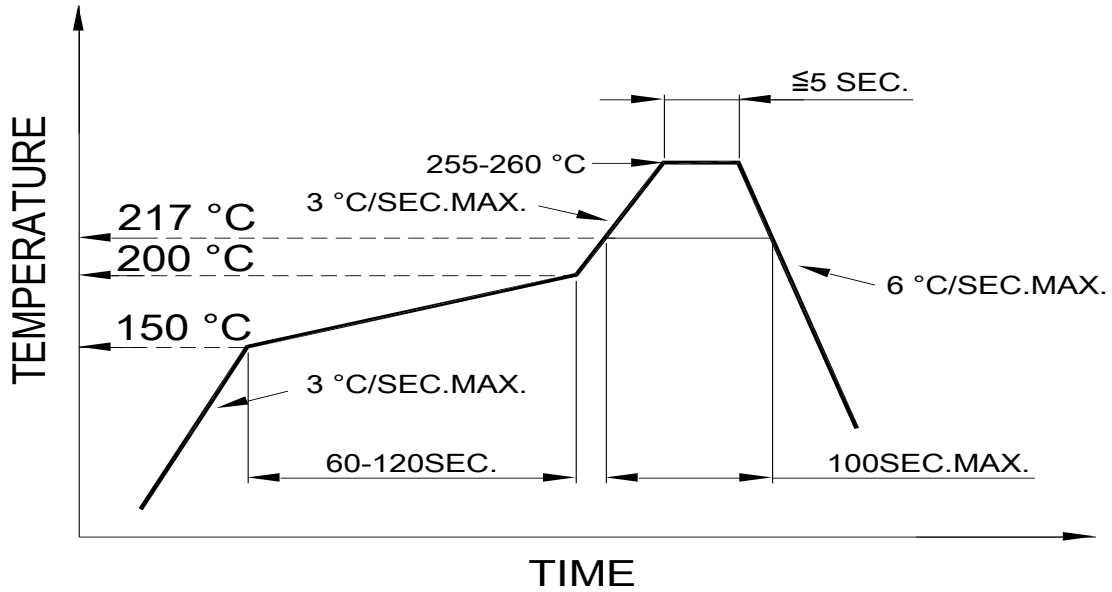


InGaN

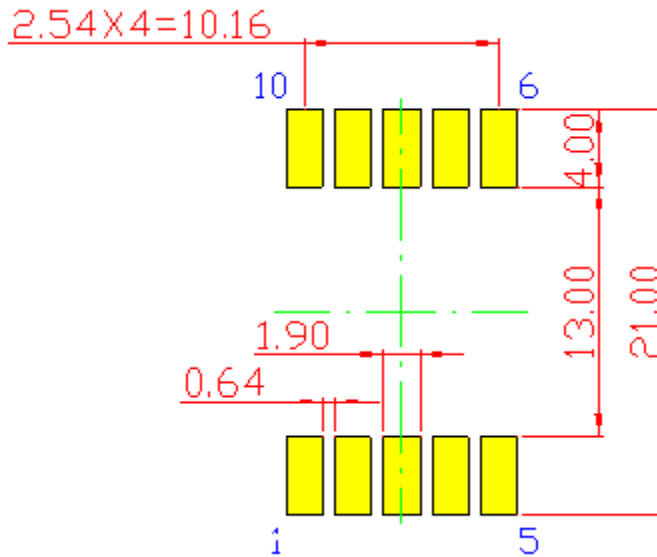


Solder Profile & Footprint

Pb free reflow soldering Profile



Recommended Pad Layout



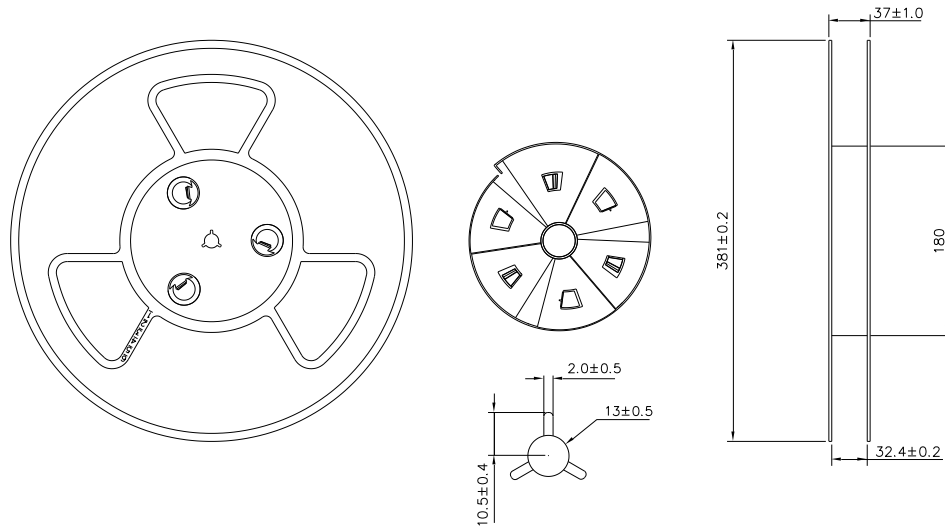
Units: mm

Tolerance: ±0.25mm

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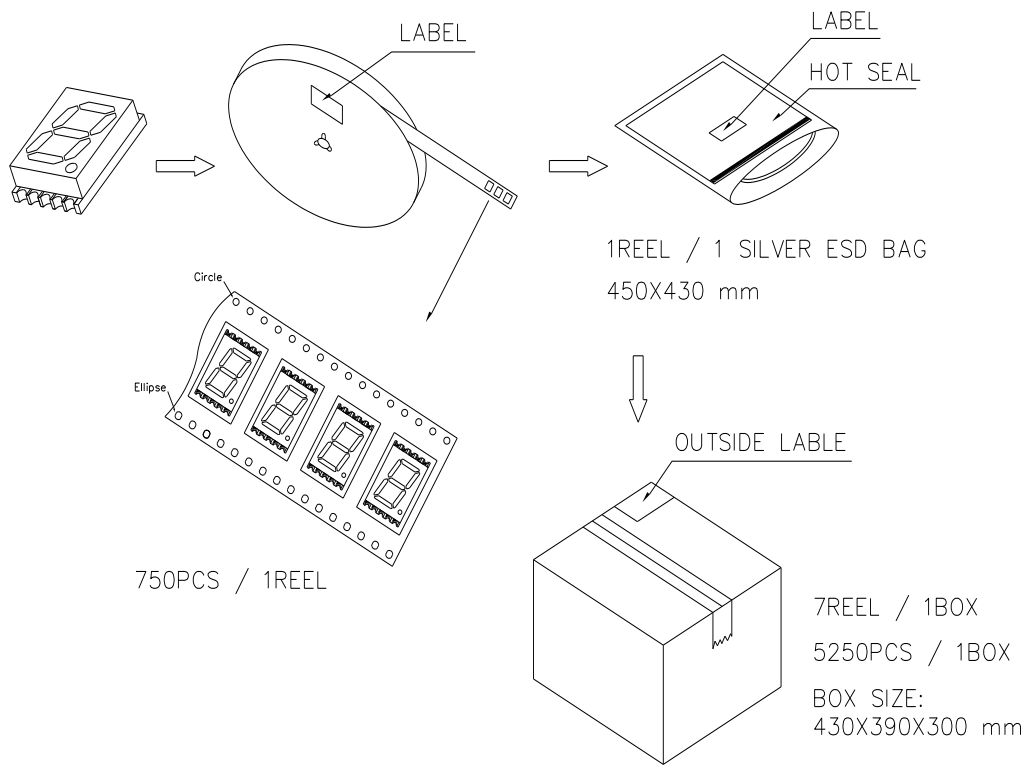
Packing & Labeling

Reel Dimensions:



Unit: mm

Packing Method:



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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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.