

QT-Brightek SMD Display Series

0.40" Three Digit Display

Part No.: QBTS40ZXX

XX= Color Code
Z= 1: Common Cathode
Z = 0: Common Anode



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Introduction

Feature:

- 0.40" three digit seven segments display
- Low power consumption
- Packed in reel
- White segment and grey surface
- Z = 0 (common anode) or 1 (common cathode)
- XX = color code

Description:

These 0.40" three digit seven segments displays are made with white segment and grey surface. The viewing distance is up to seven meters.

Application:

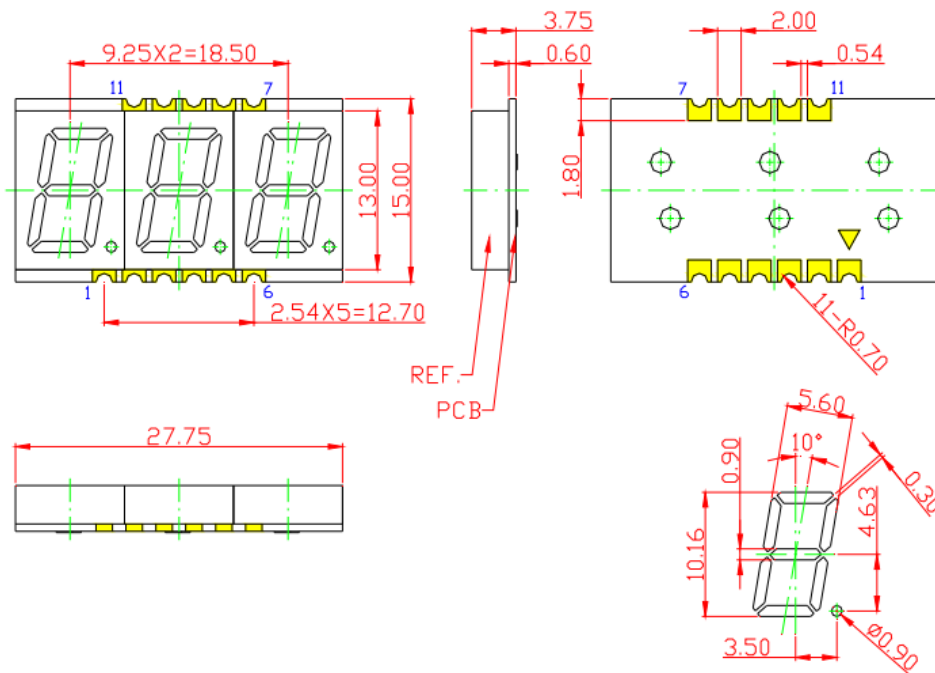
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Certification & Compliance:

- 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.
QBTS401R	QBTS400R	AllnGaP	Red	20	2.1	2.4	619	625	629	40
QBTS401S	QBTS400S	AllnGaP	Deep Red	20	2.1	2.4	635	640	648	10
QBTS401O	QBTS400O	AllnGaP	Orange	20	2.0	2.4	601	610	613	40
QBTS401Y	QBTS400Y	AllnGaP	Yellow	20	2.1	2.4	585	590	595	40
QBTS401AG	QBTS400AG	AllnGaP	Yellow Green	20	2.1	2.4	567	570	576	18
QBTS401IG	QBTS400IG	InGaN	Green	20	3.0	3.4	515	520	530	330
QBTS401IB	QBTS400IB	InGaN	Blue	20	3.0	3.4	466	470	474	60

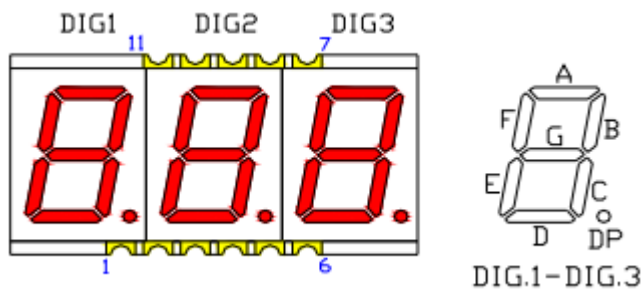
Absolute Maximum Rating:

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AllnGaP	48	20	40	5	-40 to +105	-40 to +105	260
InGaN	90	30	60	5	-40 to +105	-40 to +105	260

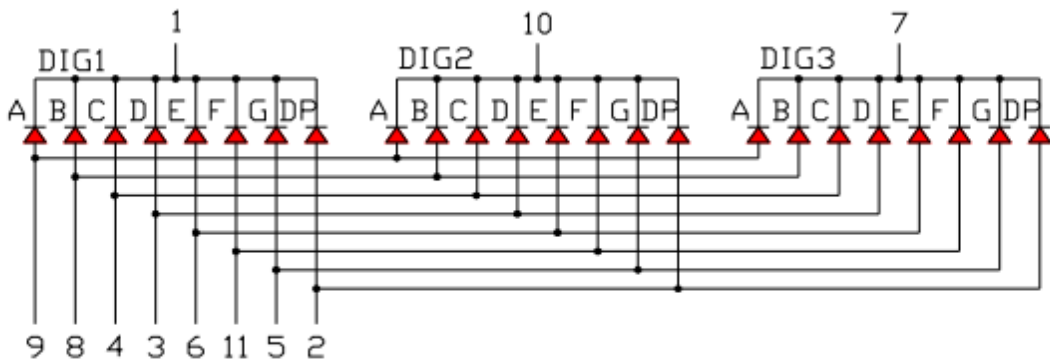
*Duty 1/10 @ 1KHz

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

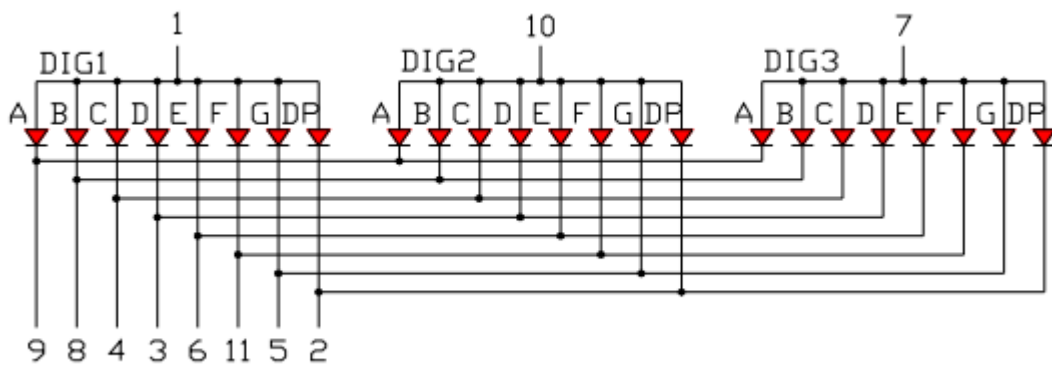
Pin Configuration:



CC

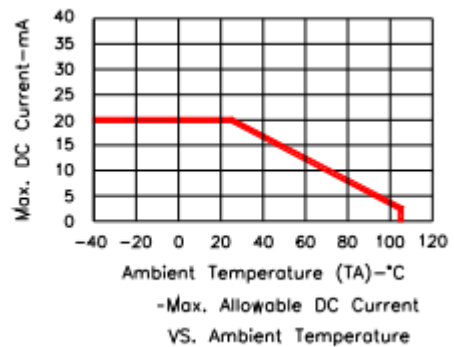
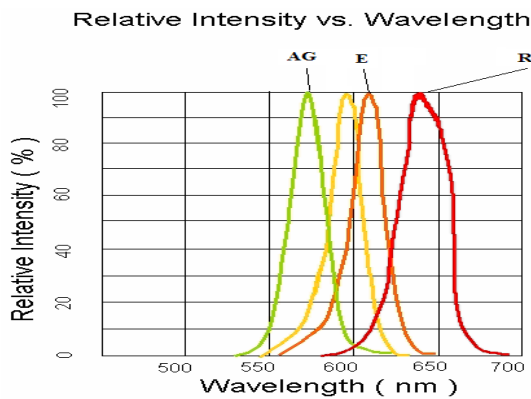
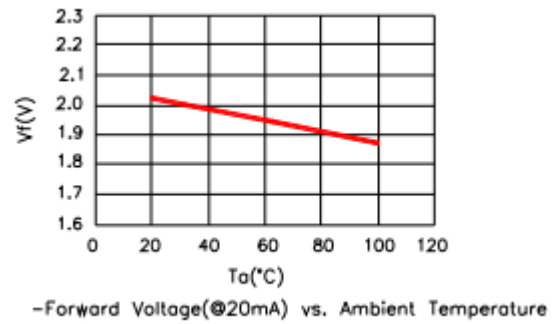
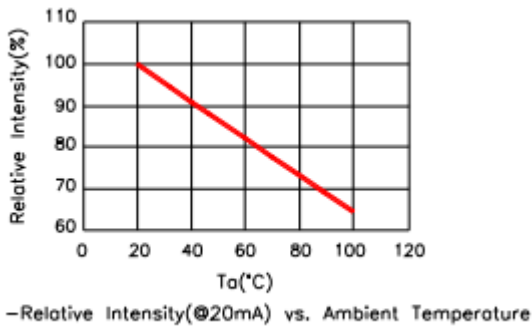
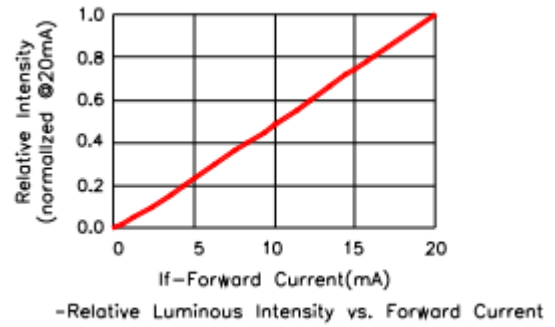
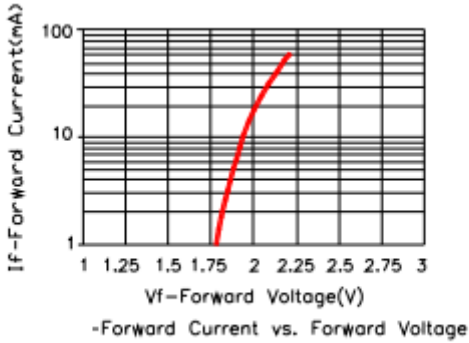


CA

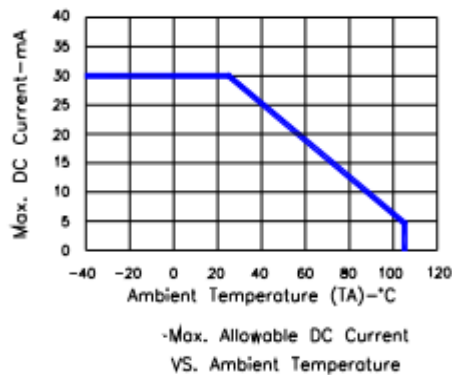
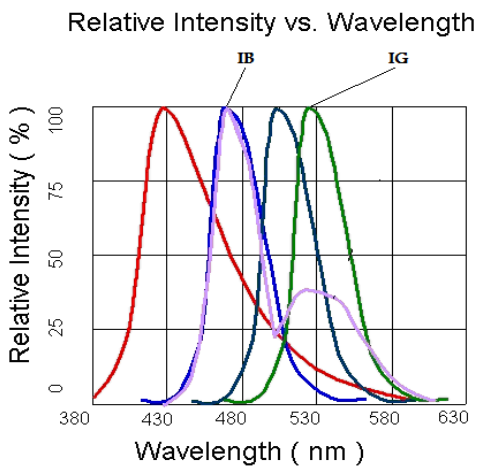
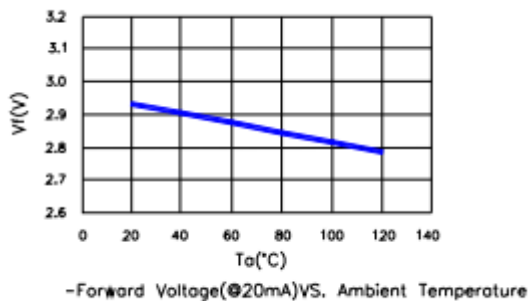
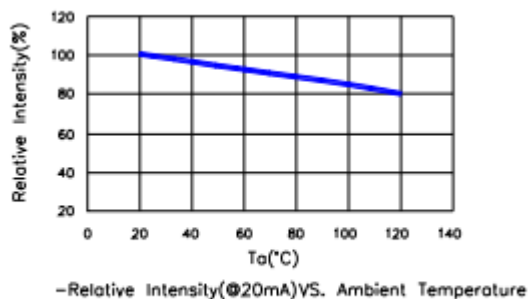
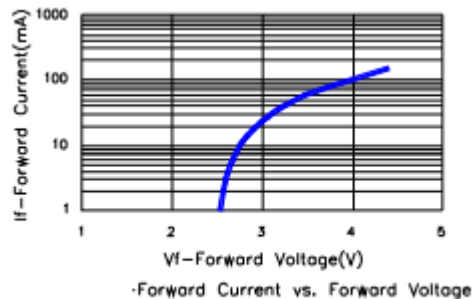
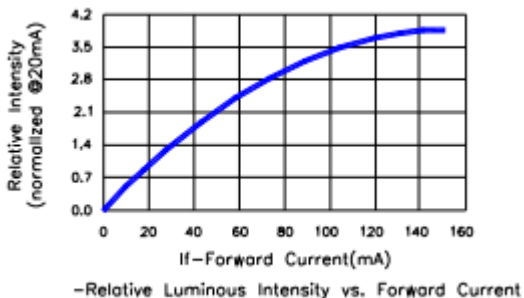


Characteristic Curves

AllnGaP

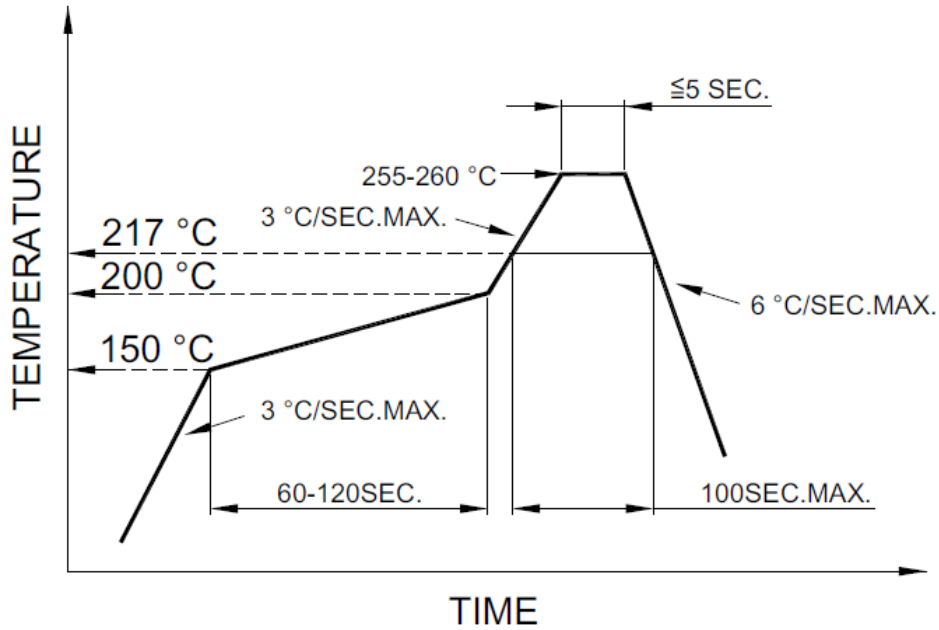


InGaN

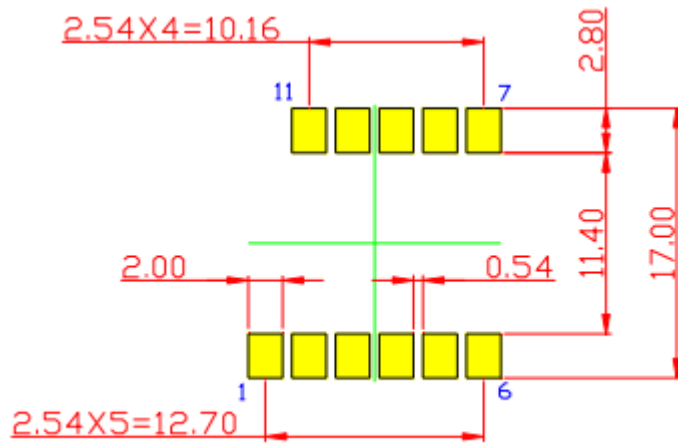


Solder Profile & Footprint

Recommended Lead-free Solder Profile



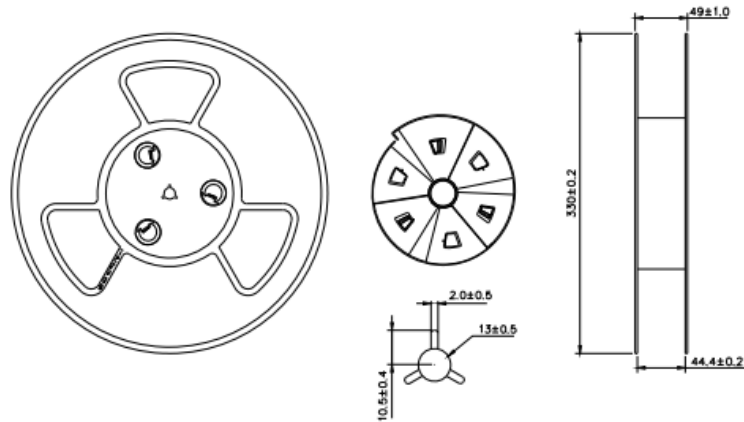
Recommended Pad Layout



Units: mm

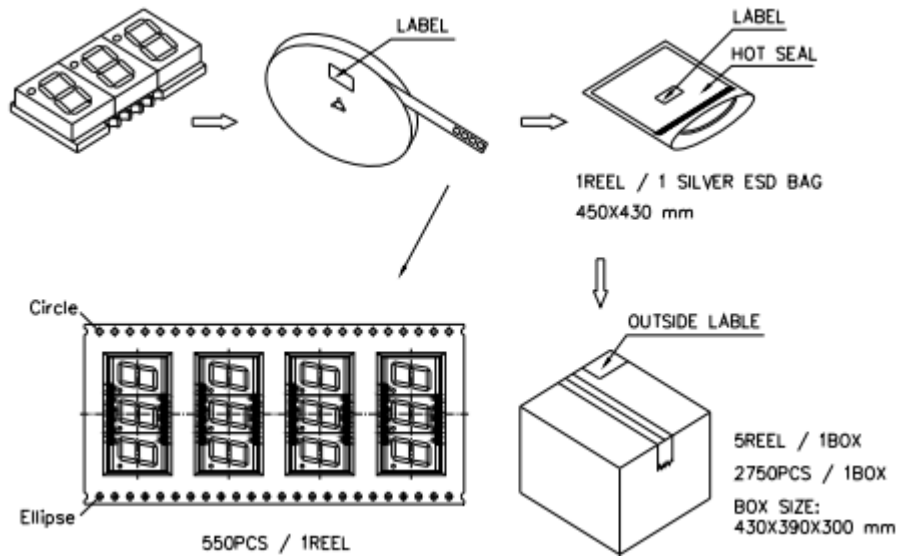
Packing

Reel Dimensions:



Unit: mm

Packing Specifications:



Ordering Information:

Product		Orderable Part #		Spec Range	Quantity per Reel
CC	CA	CC	CA		
QBTS401R	QBTS400R	QBTS401R	QBTS400R	Iv=40mcd typ. @ I _F =20mA / λ _D :625nm typ.	550
QBTS401S	QBTS400S	QBTS401S	QBTS400S	Iv=10mcd typ. @ I _F =20mA / λ _D :640nm typ.	550
QBTS401O	QBTS400O	QBTS401O	QBTS400O	Iv=40mcd typ. @ I _F =20mA / λ _D :610nm typ.	550
QBTS401Y	QBTS400Y	QBTS401Y	QBTS400Y	Iv=40mcd typ. @ I _F =20mA / λ _D :590nm typ.	550
QBTS401AG	QBTS400AG	QBTS401AG	QBTS400AG	Iv=18mcd typ. @ I _F =20mA / λ _D :570nm typ.	550
QBTS401IG	QBTS400IG	QBTS401IG	QBTS400IG	Iv=330mcd typ. @ I _F =20mA / λ _D :520nm typ.	550
QBTS401IB	QBTS400IB	QBTS401IB	QBTS400IB	Iv=60mcd typ. @ I _F =20mA / λ _D :470nm typ.	550

Revision History

Description:	Revision #	Revision Date
New Release of QBTS40ZXX	V1.0	03/25/2014
Update spec and dimension drawing / Add more color options	V1.1	11/02/2015
Update drawing (PCB update) and packing spec	V2.0	03/11/2021

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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.