

QT-Brightek Display Series

0.28" Four Digit Display

Part No.: QBQ28XXZ

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

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Introduction

Feature:

- 0.28" four digit seven segments display
- Packed in foam
- AllInGaP Technology S/R/R3/Y/AG/O
- InGaN Technology IB/IG
- Z= 0: Common anode
- Z= 1: Common cathode
- XX= Color
- Gray face
- White segment

Application:

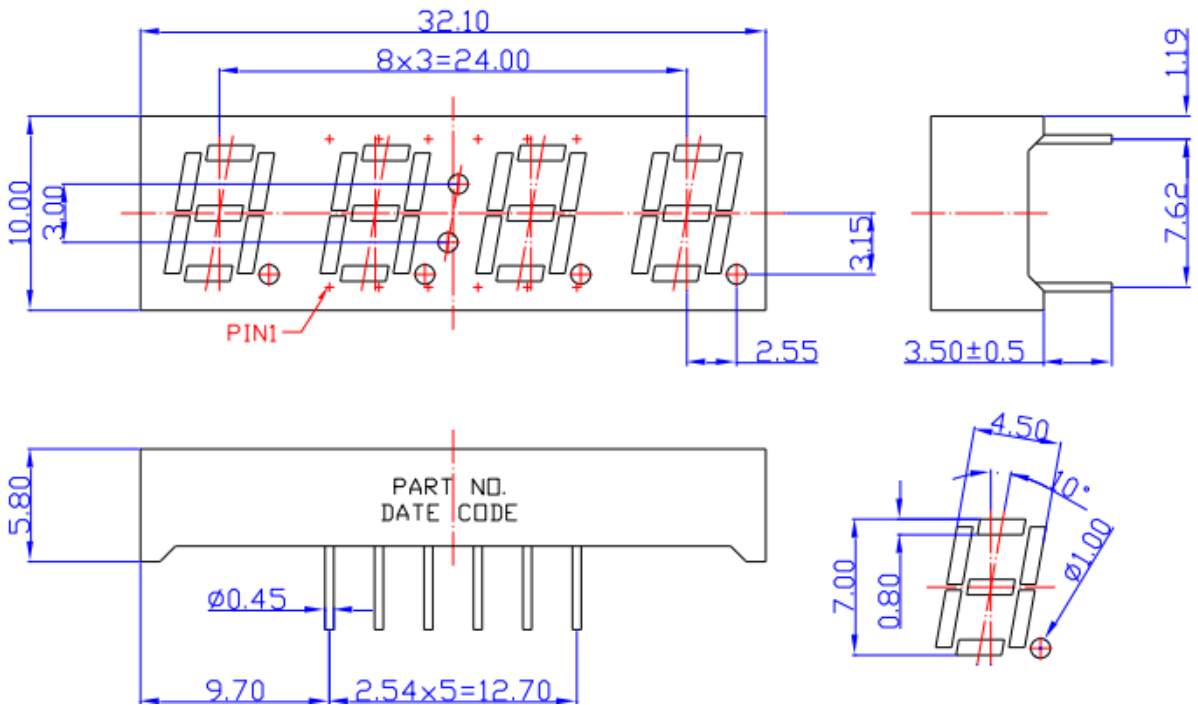
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.25mm

Electrical / Optical Characteristic (Ta=25 °C)

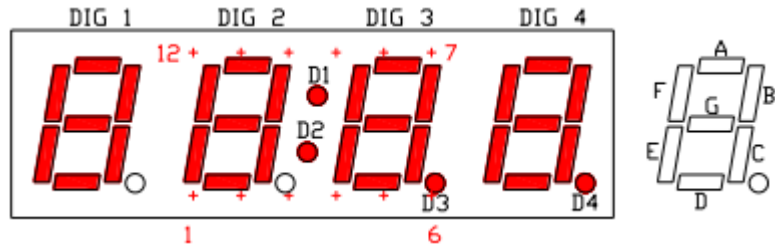
Product		Color	I _F (mA)	V _F (V)		λ _D (nm)	λ _P (nm)	I _V (mcd)
CA	CC			Typ.	Max.	Typ.	Typ.	Typ.
QBQ28S0	QBQ28S1	Deep Red	20	2.1	2.4	639	650	15
QBQ28R30	QBQ28R31	Red	20	2.1	2.4	631	645	20
QBQ28R0	QBQ28R1	Red	20	2.1	2.4	624	632	40
QBQ28O0	QBQ28O1	Orange	20	2.0	2.4	606	612	40
QBQ28Y0	QBQ28Y1	Yellow	20	2.1	2.4	590	593	40
QBQ28AG0	QBQ28AG1	Yellow Green	20	2.1	2.4	571	573	15
QBQ28IG0	QBQ28IG1	True Green	20	2.8	3.2	525	-	200
QBQ28IB0	QBQ28IB1	Blue	20	3.0	3.4	465	-	40

Absolute Maximum Rating

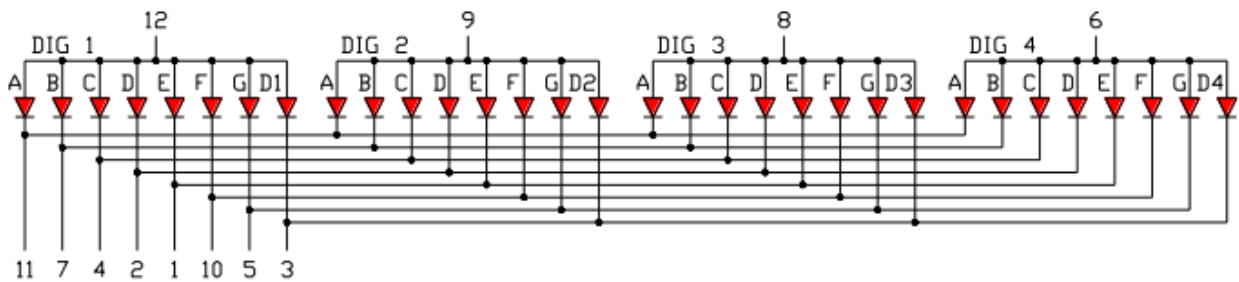
Chip Material	P _d (mW)	I _F (mA)	I _{PF} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)
AllnGaP	48	20	40	5	-40 to +85	-40 to +85
InGaN	68	20	60	5	-40 to +85	-40 to +85

*Duty 1/10 @ 1kHz

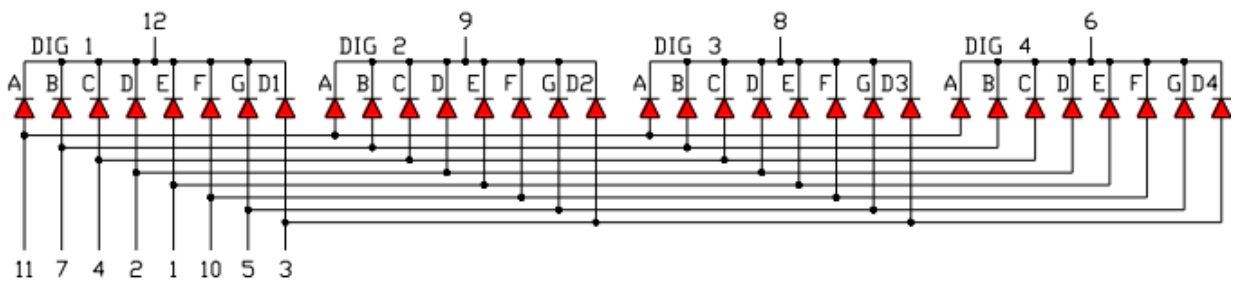
Pin Configuration



Common Anode (QBQ28XX0)

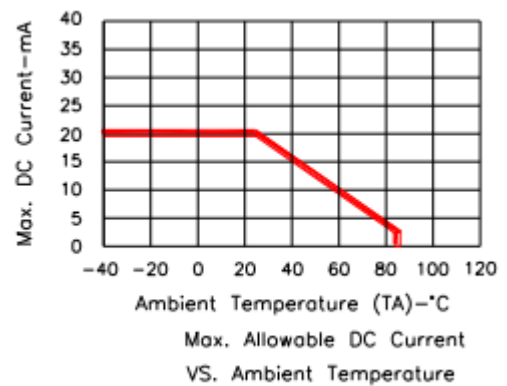
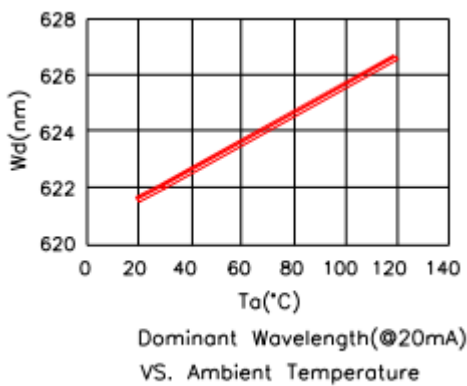
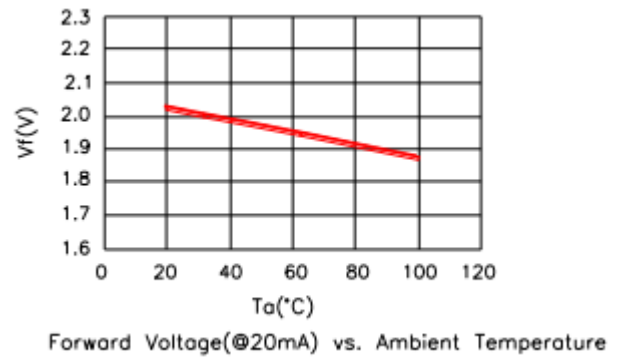
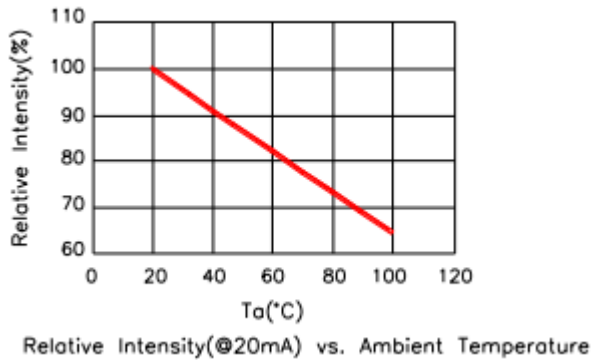
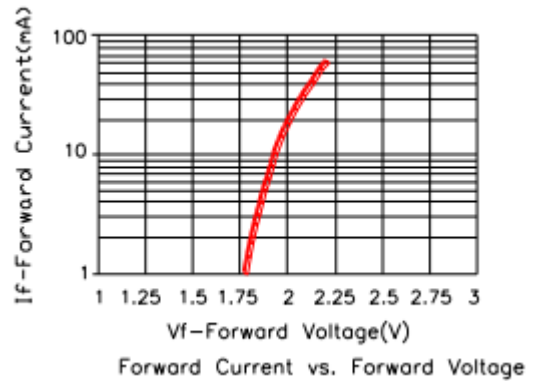
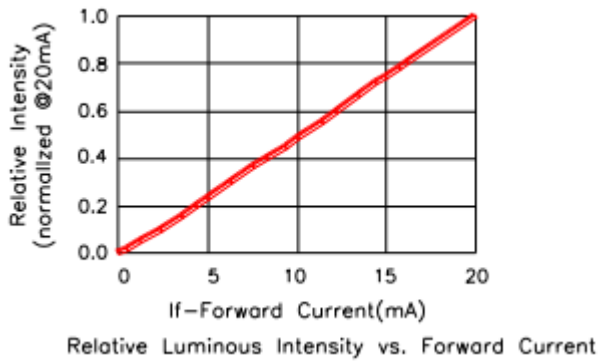


Common Cathode (QBQ28XX1)

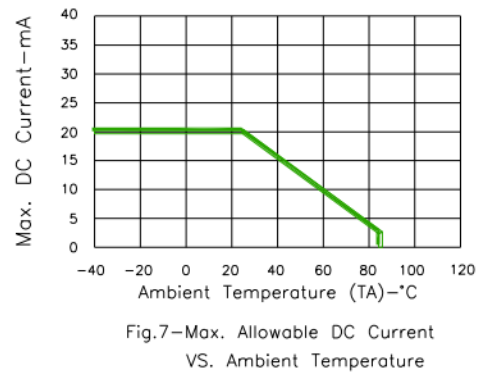
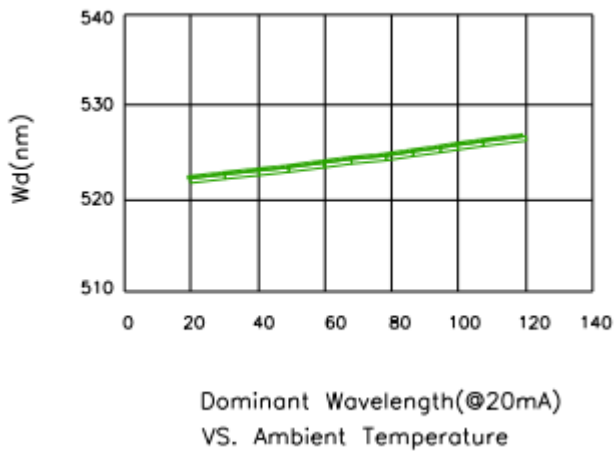
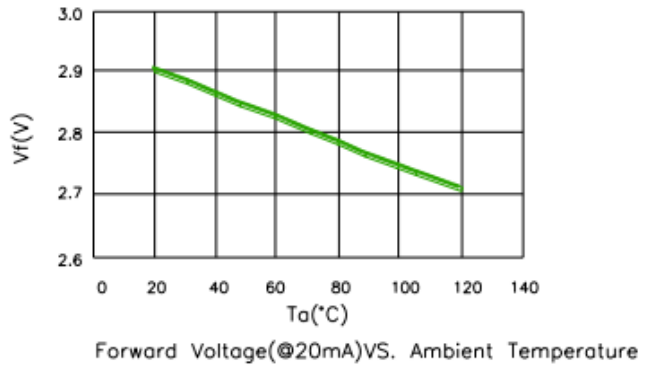
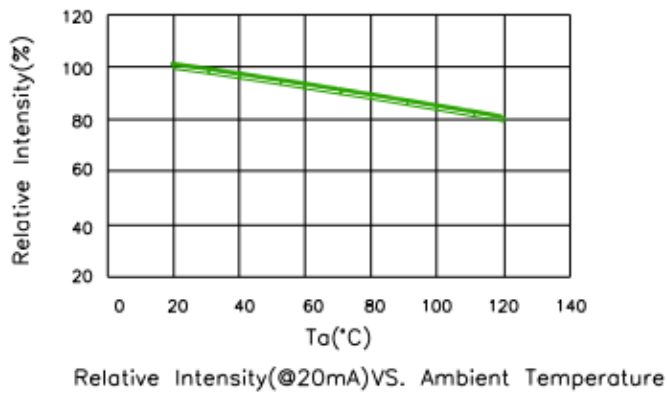
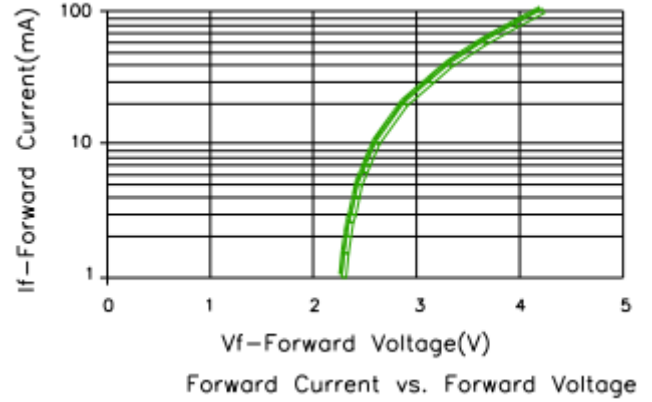
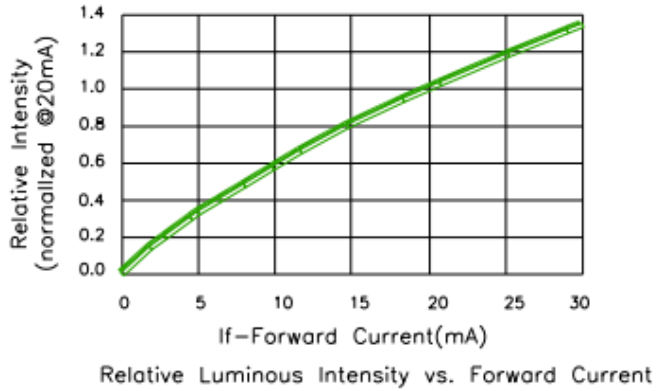


Characteristic Curves

AllnGaP



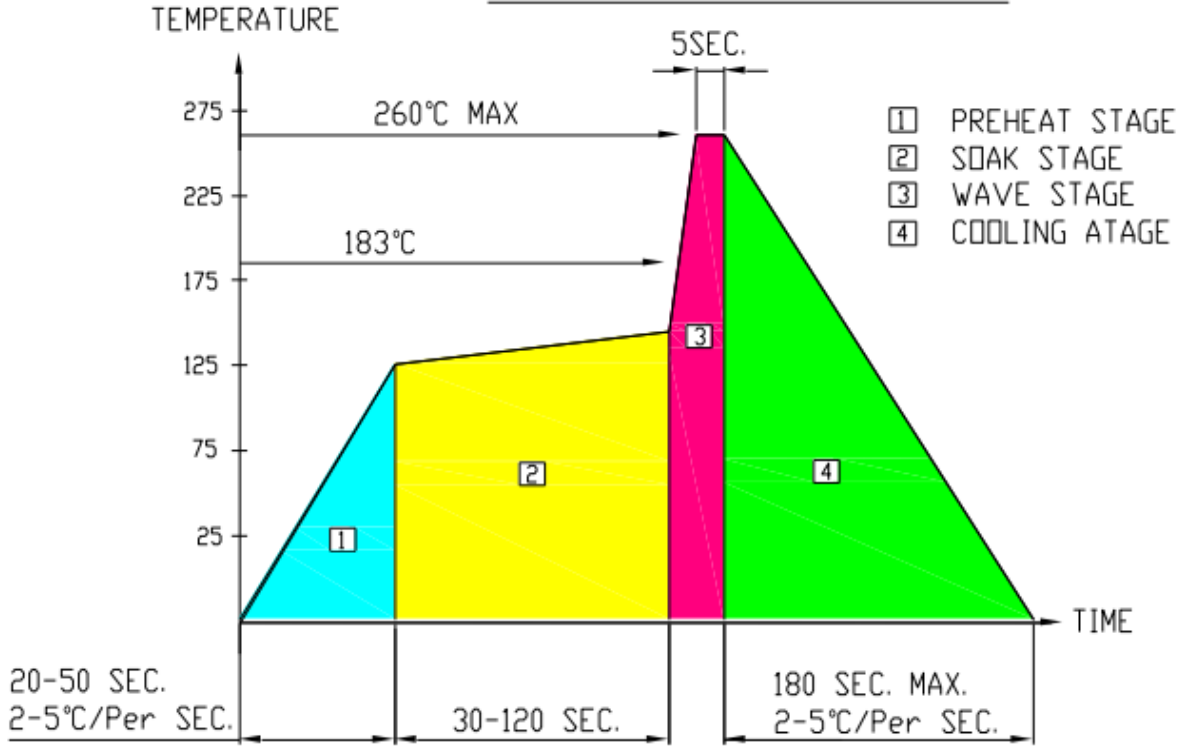
InGaN



Solder Profile

Recommended Wave Soldering Profile

WAVE SOLDER PROFILE





Ordering Information

Orderable Part #		Spec Range	Quantity per foam
CA	CC		
QBQ28S0	QBQ28S1	Iv=15mcd typ. @ I _F =20mA, λ _D =639nm typ.	209pcs
QBQ28R30	QBQ28R31	Iv=20mcd typ. @ I _F =20mA, λ _D =631nm typ.	
QBQ28R0	QBQ28R1	Iv=40 mcd typ. @ I _F =20mA, λ _D =624nm typ.	
QBQ28O0	QBQ28O1	Iv=40mcd typ. @ I _F =20mA, λ _D =606nm typ.	
QBQ28Y0	QBQ28Y1	Iv=40mcd typ. @ I _F =20mA, λ _D =590nm typ.	
QBQ28AG0	QBQ28AG1	Iv=15mcd typ. @ I _F =20mA, λ _D =571nm typ.	
QBQ28IG0	QBQ28IG1	Iv=200mcd typ. @ I _F =20mA, λ _D =525nm typ.	
QBQ28IB0	QBQ28IB1	Iv=40mcd typ. @ I _F =20mA, λ _D =465nm typ.	

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Revision History

Description:	Revision #	Revision Date
New Release of QBQ28XXX_series	V1.0	9/20/2010
Amend part number to QBQ28XXZ / add color spec: blue and true green	V2.0	02/27/2020
Update format / Add more color options	V2.1	09/21/2015
Update spec and color options	V2.2	12/04/2024

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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.

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