

QT-Brightek Display Series

0.56" Single Digit Display

Part No.: QBS56XXZ

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 foam
- AllInGaP Technology R/S/Y/AG/O
- InGaN Technology IB/IG
- Z= 1: Common Cathode or 0:Common Anode
- XX= color

Description:

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

Application:

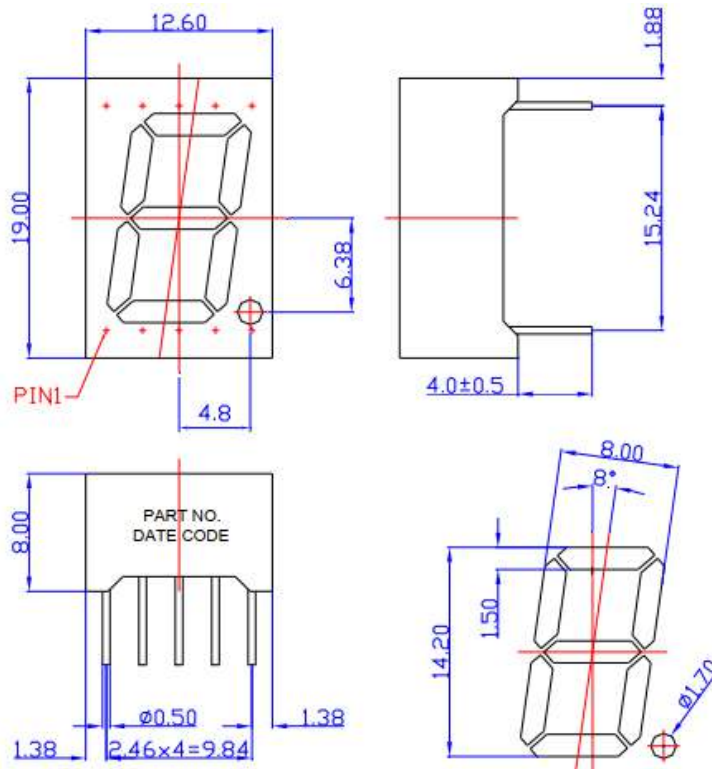
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.25mm

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Electrical / Optical Characteristic (Ta=25 °C)

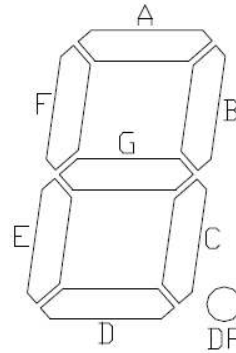
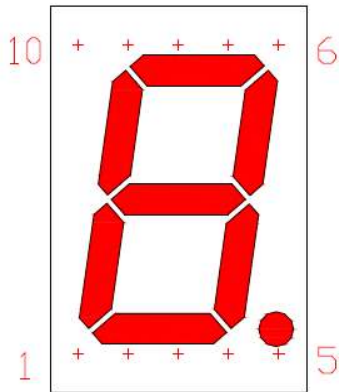
Product		Material	Color	I _F (mA)	V _F (V)		λ _D (nm)			λ _P (nm)	I _V (mcd)
CC	CA				Typ.	Max.	Min.	Typ.	Max.	Typ.	Typ.
QBS56R1	QBS56R0	AllnGaP	Red	20	2.1	2.4	619	624	629	632	60
QBS56S1	QBS56S0	AllnGaP	Deep Red	20	2.1	2.4	636	639	648	650	20
QBS56Y1	QBS56Y0	AllnGaP	Yellow	20	2.1	2.4	585	590	595	593	60
QBS56O1	QBS56O0	AllnGaP	Orange	20	2.0	2.4	601	606	611	612	60
QBS56AG1	QBS56AG0	AllnGaP	Green	20	2.1	2.4	567	571	576	573	20
QBS56IG1	QBS56IG0	InGaN	True Green	20	2.8	3.2	515	525	530	-	250
QBS56IB1	QBS56IB0	InGaN	Blue	20	3.0	3.4	460	465	475	-	60

Absolute Maximum Rating

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

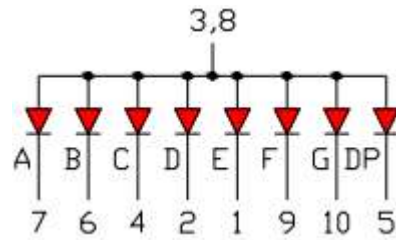
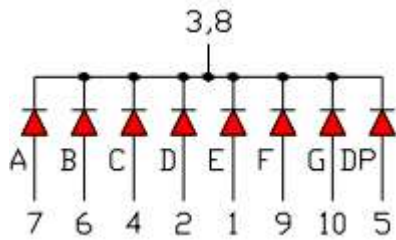
*Duty 1/10 @ 1KHz

Pin Configuration



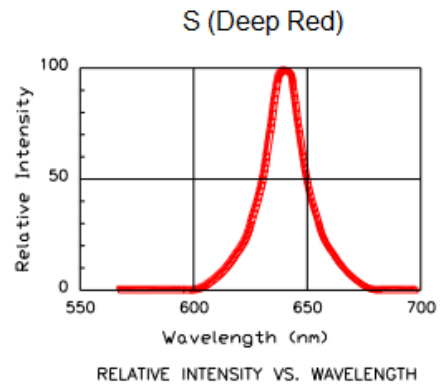
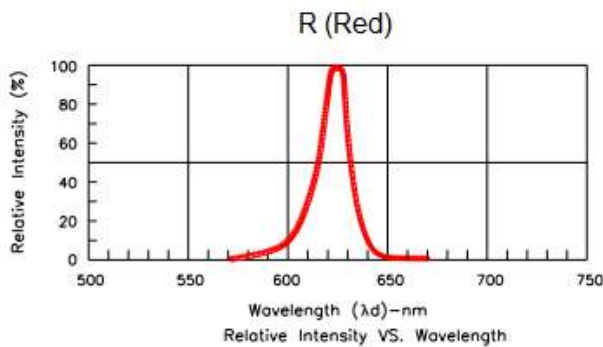
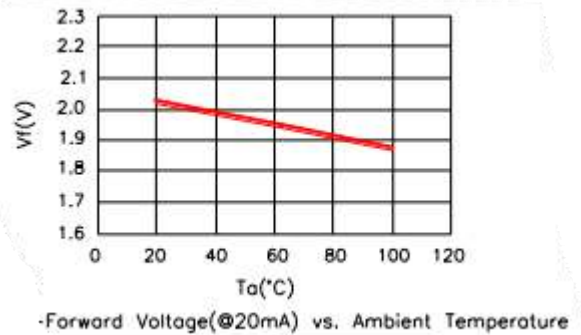
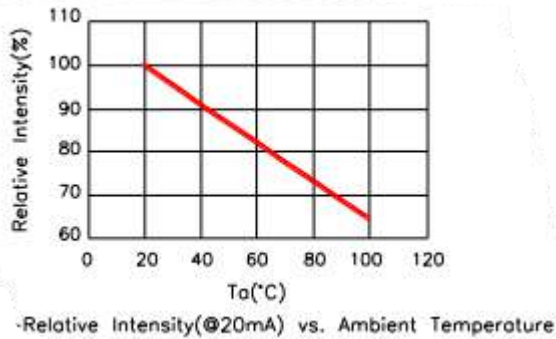
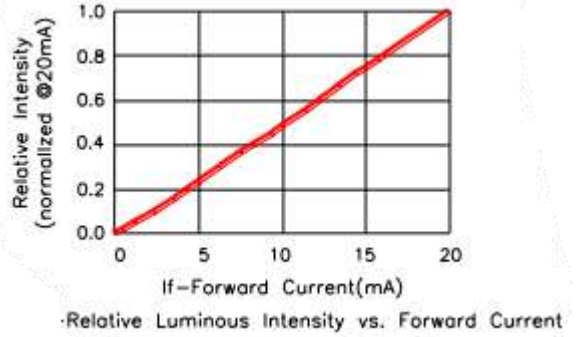
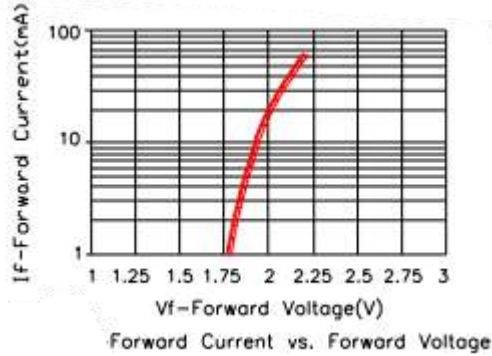
Common Cathode (QBS56XX1)

Common Anode (QBS56XX0)

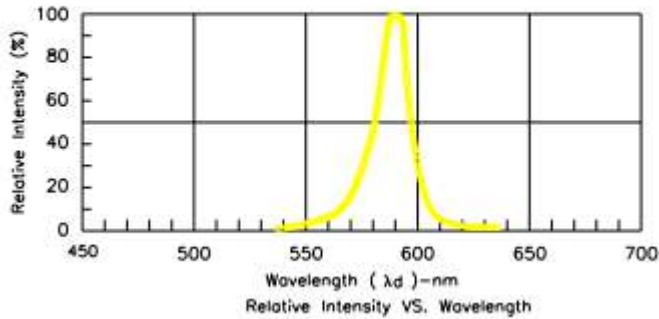


Characteristic Curves

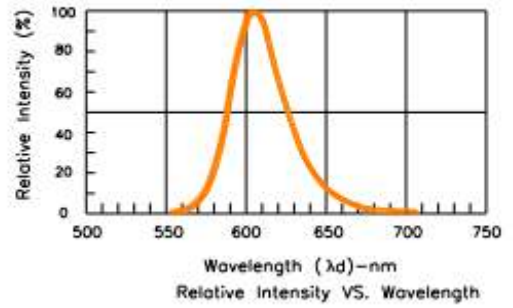
AllnGaP (R/S/Y/O/AG)



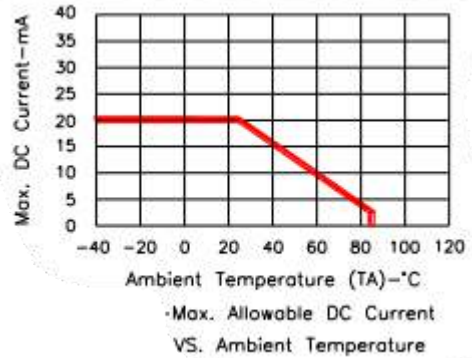
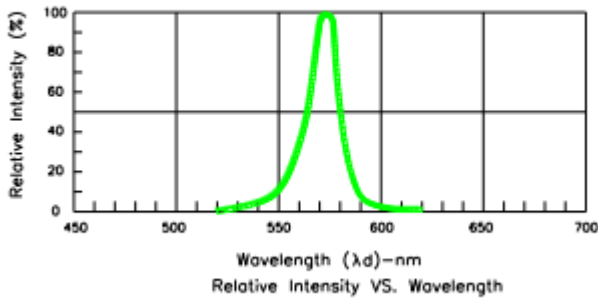
Y (Yellow)



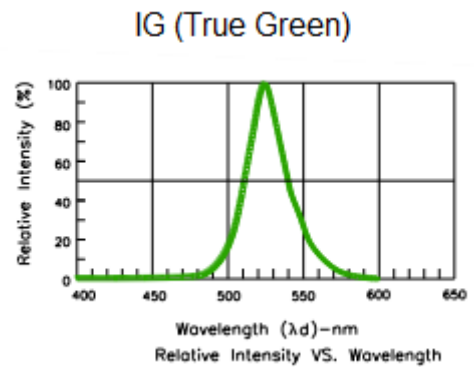
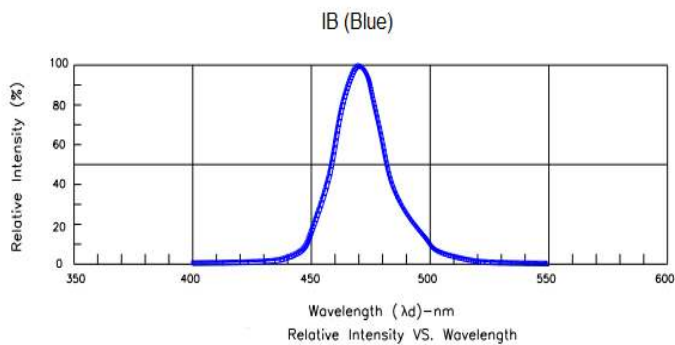
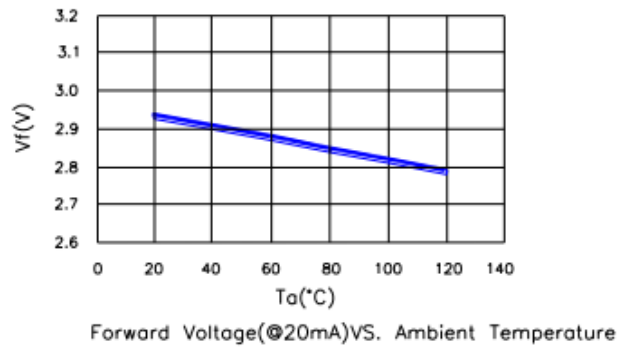
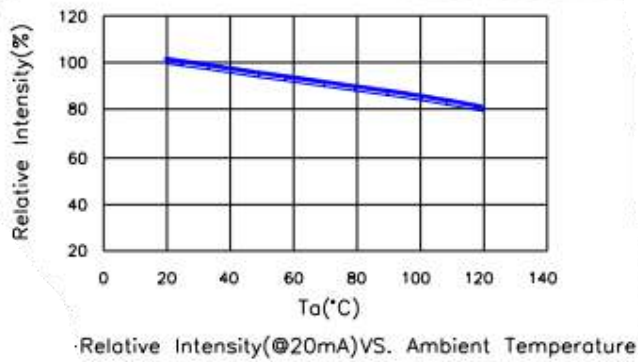
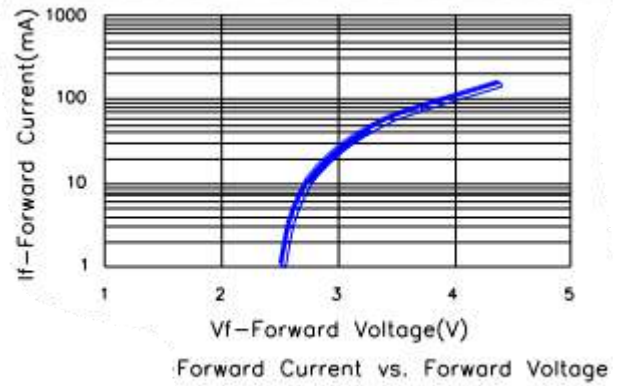
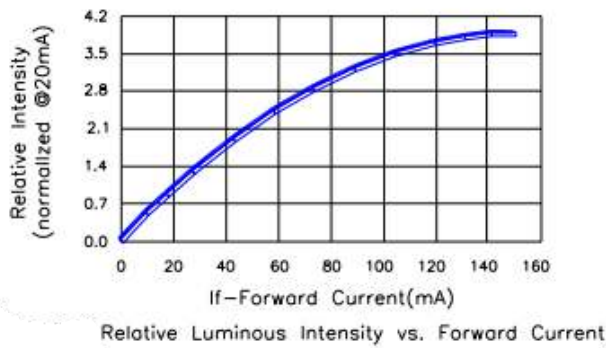
O (Orange)

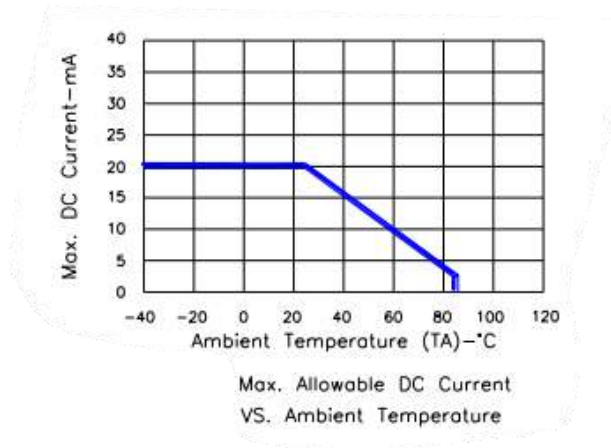


AG (Green)



InGaN (IG/IB)

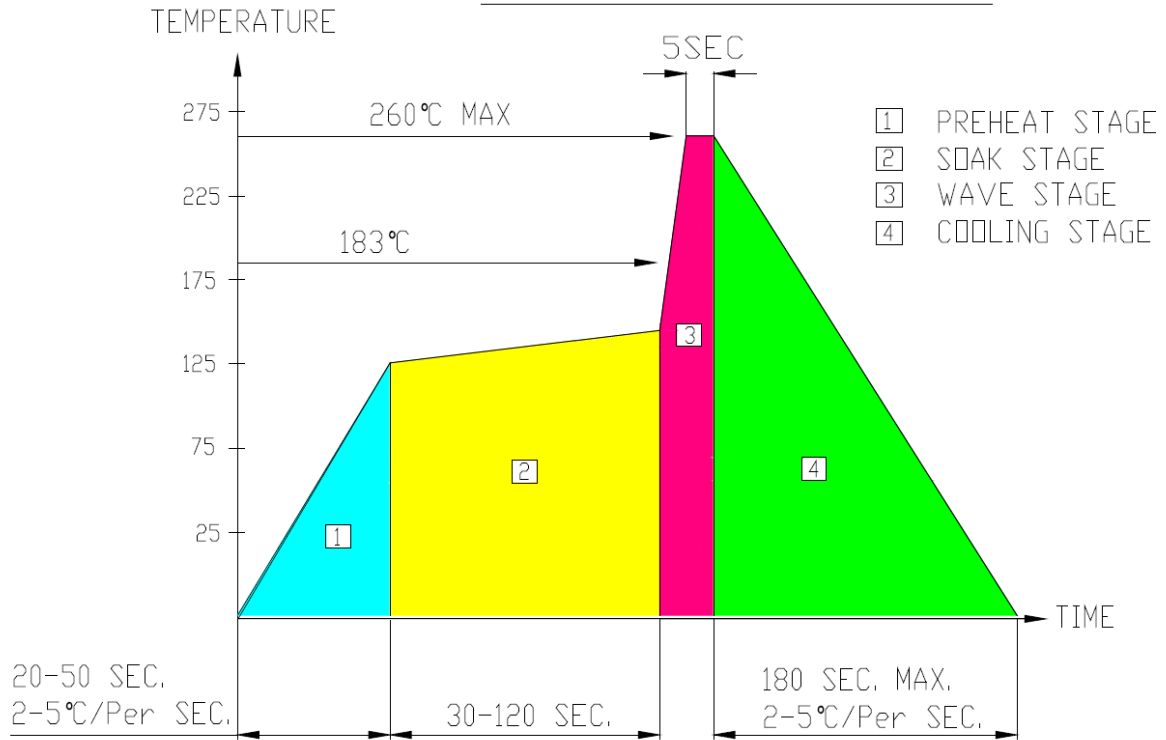




Solder Profile

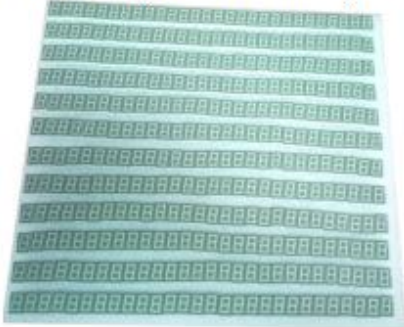
Recommended Solder Profile

WAVE SOLDER PROFILE

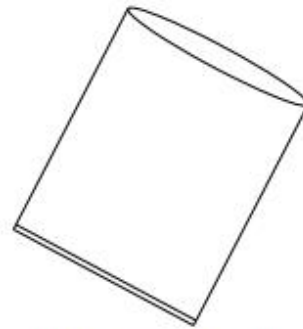
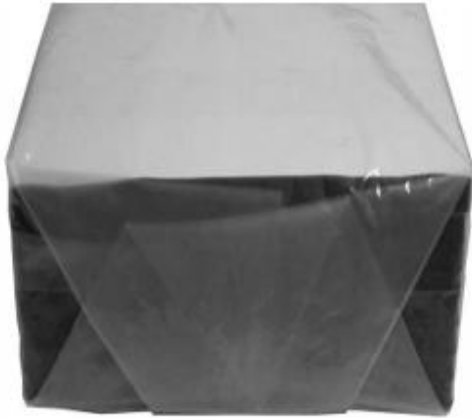


Packing

336 PCS (28 x 12 PCS) / 1 White Polyform

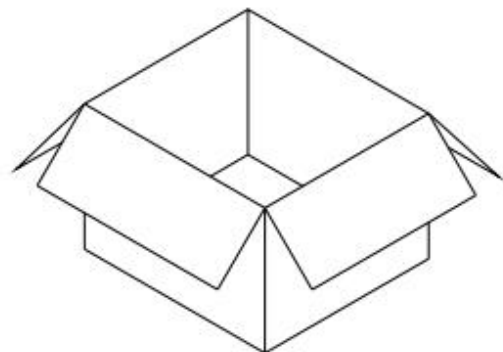


13 White Polyform / 1 BAG



BAG SIZE : 450X410X760

4368 PCS / 1 BAG / 1 Inner Carton



OUTER BOX SIZE : 430 x 390 x 300 mm

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Ordering Information

Product		Orderable Part #		Spec Range	Quantity per foam
CC	CA	CC	CA		
QBS56R1	QBS56R0	QBS56R1	QBS56R0	I _v =60mcd typ. @ I _F =20mA, λ _D =624nm typ.	336pcs
QBS56S1	QBS56S0	QBS56S1	QBS56S0	I _v =20mcd typ. @ I _F =20mA, λ _D =639nm typ.	336pcs
QBS56Y1	QBS56Y0	QBS56Y1	QBS56Y0	I _v =60mcd typ. @ I _F =20mA, λ _D =590nm typ.	336pcs
QBS56O1	QBS56O0	QBS56O1	QBS56O0	I _v =60mcd typ. @ I _F =20mA, λ _D =606nm typ.	336pcs
QBS56AG1	QBS56AG0	QBS56AG1	QBS56AG0	I _v =20mcd typ. @ I _F =20mA, λ _D =571nm typ.	336pcs
QBS56IG1	QBS56IG0	QBS56IG1	QBS56IG0	I _v =250mcd typ. @ I _F =20mA, λ _D =525nm typ.	336pcs
QBS56IB1	QBS56IB0	QBS56IB1	QBS56IB0	I _v =60mcd typ. @ I _F =20mA, λ _D =465nm typ.	336pcs

Revision History

Description:	Revision #	Revision Date
New Release of QBS56XXZ_series	V1.0	06/24/2011
Amend Pin Configuration	V1.1	12/19/2011
Add Orange Color spec	V1.2	02/13/2012
Updated binning and packing specs	V1.3	03/06/2012
Update format	V1.4	05/29/2012
Add more color option, update spec	V1.5	04/17/2015
Update spec and packing method / add λ_P	V1.6	05/12/2022

Disclaimer

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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.