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QT-Brightek SMD Display Series

0.20" Single Digit SMD Display

Part No.: QBSS20ZXX

XX= Color

Z= 1: Common Cathode

Z = 0: Common Anode

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	Version# 1.3	

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.
QBSS201R	QBSS200R	AllnGaP	Red	20	2.0	2.6	-	625	-	20
QBSS201S	QBSS200S	AllnGaP	Deep Red	20	2.0	2.5	-	640	-	10
QBSS201Y	QBSS200Y	AllnGaP	Yellow	20	2.0	2.6	-	590	-	30
QBSS201O	QBSS200O	AllnGaP	Orange	20	2.0	2.6	-	610	-	30
QBSS201AG	QBSS200AG	AllnGaP	Yellow Green	20	2.0	2.6	-	570	-	7
QBSS201IG	QBSS200IG	InGaN	True Green	20	2.8	3.8	-	525	-	100
QBSS201IB	QBSS201IB	InGaN	Blue	20	3.2	4.0	-	470	-	25

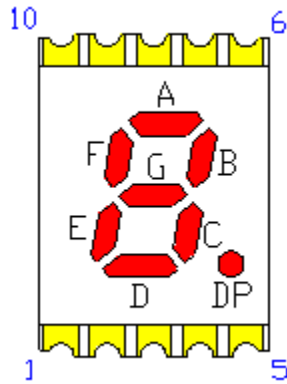
Absolute Maximum Rating

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

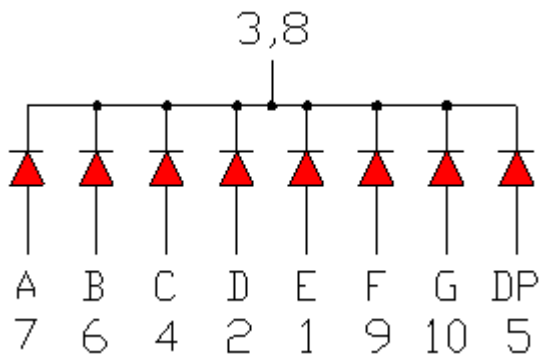
*Duty 1/10 @ 1KHz

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

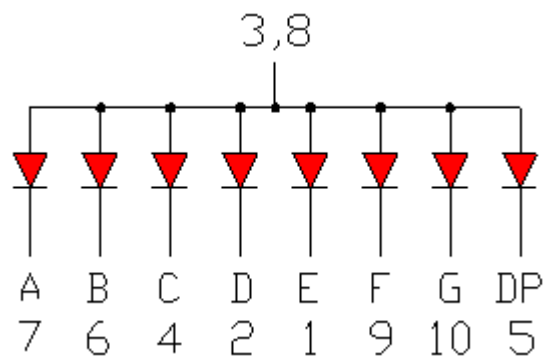
Pin Configuration



CC

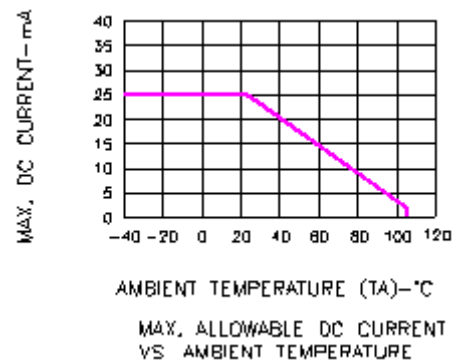
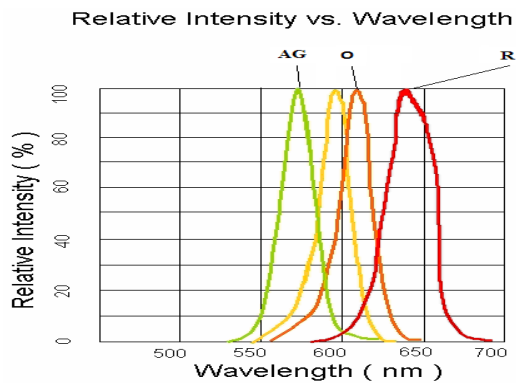
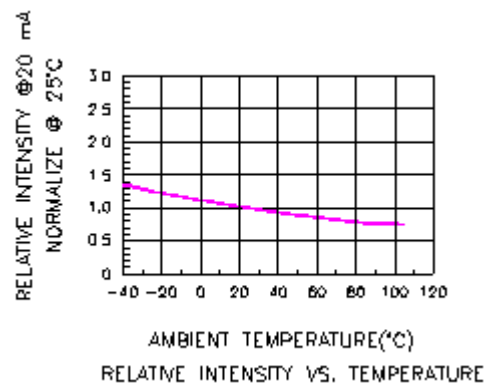
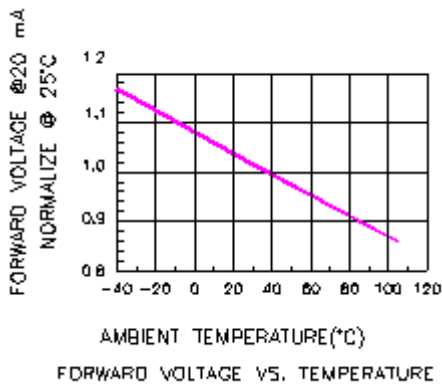
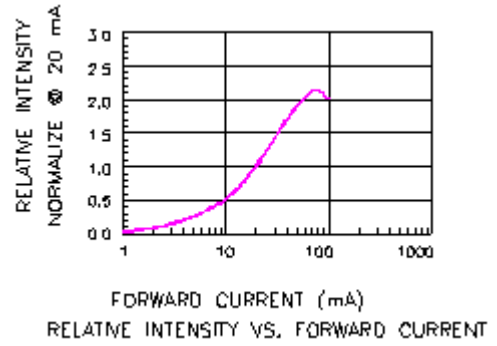
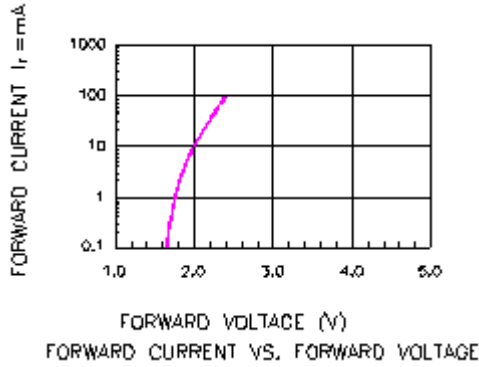


CA

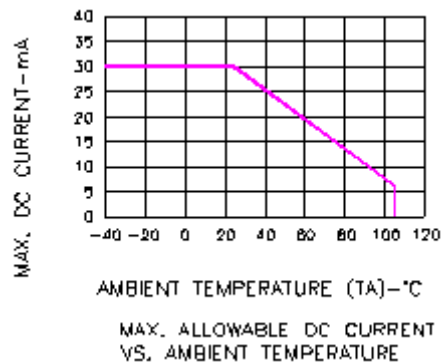
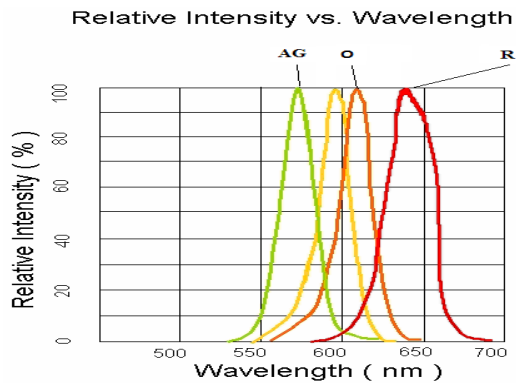
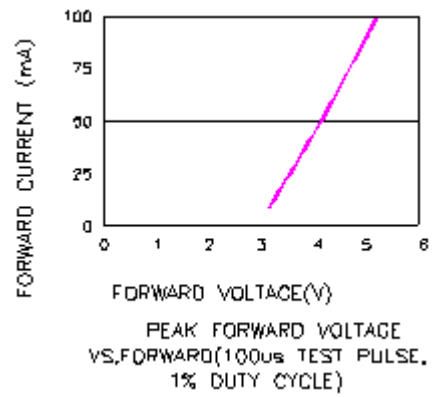
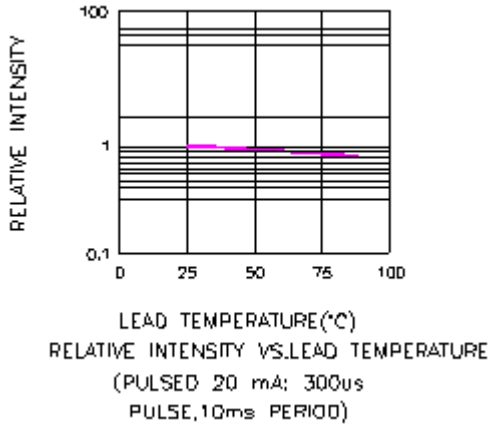
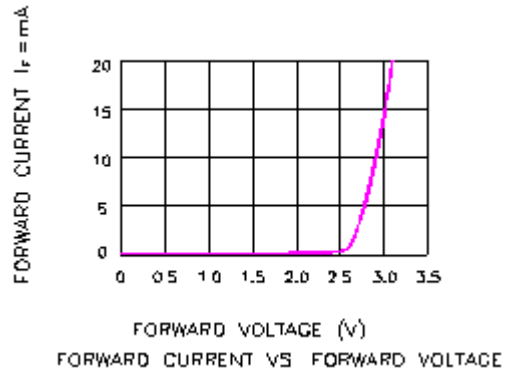
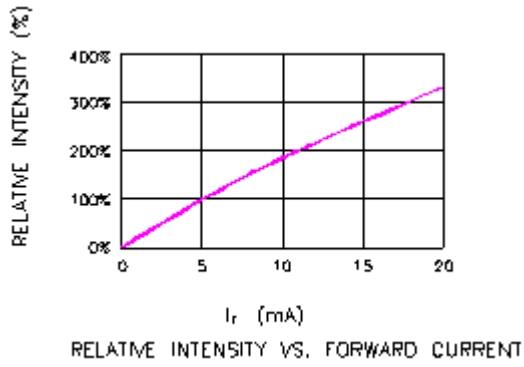


Characteristic Curves

AllnGaP

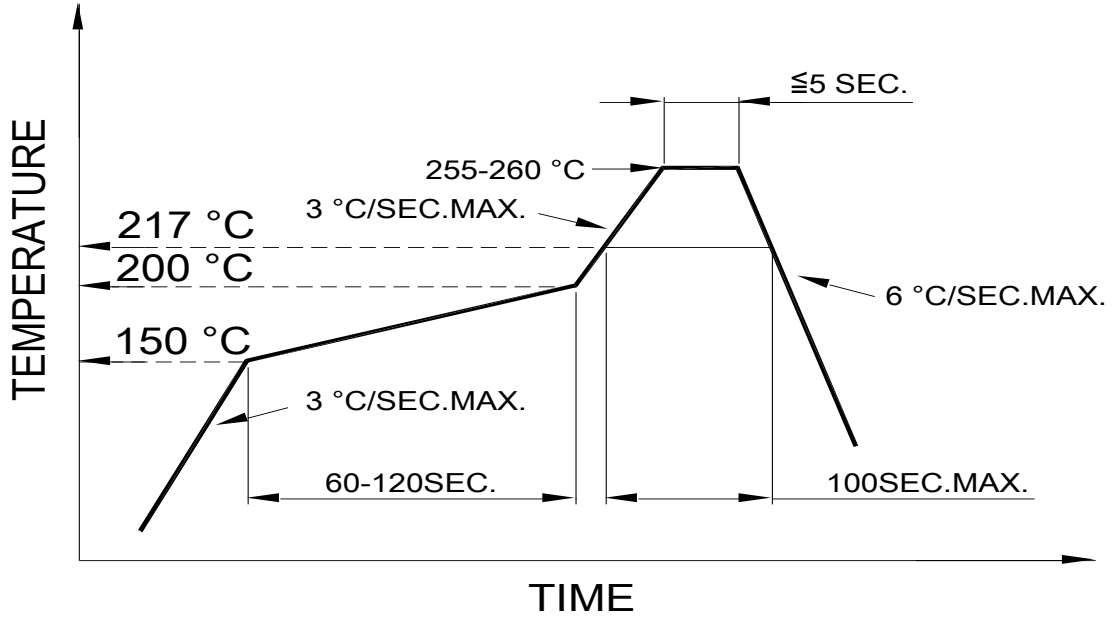


InGaN

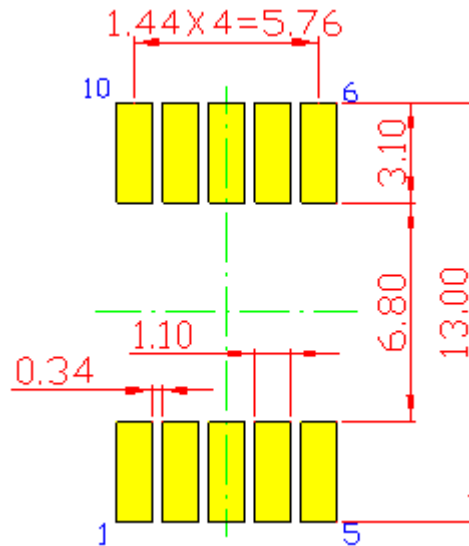


Solder Profile & Footprint

Pb free reflow soldering Profile



Recommended Pad Layout

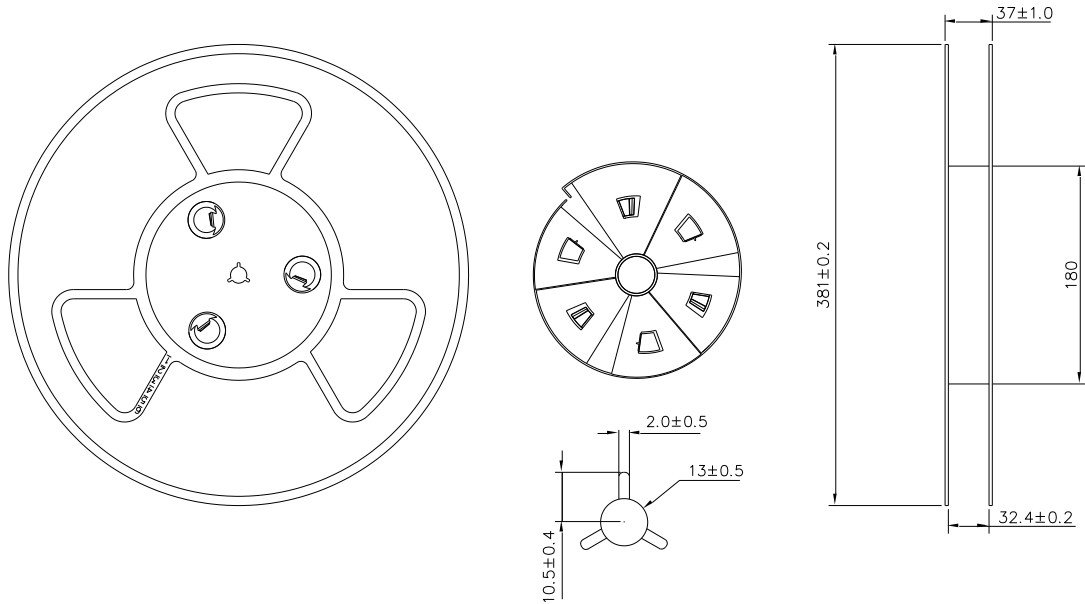


Units: mm

Tolerance: ± 0.25 mm

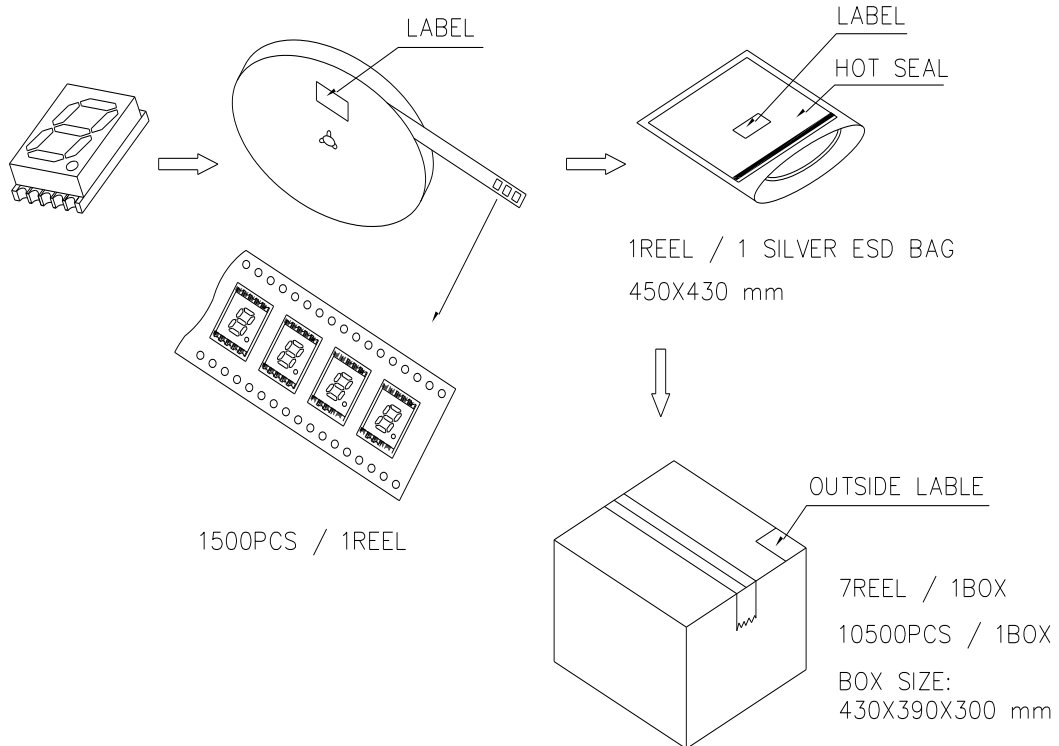
Packing & Labeling

Reel Dimension:



Unit: mm

Packing Method:



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Ordering Information

Product		Orderable Part #		Spec Range	Quantity per Reel
CC	CA	CC	CA		
QBSS201R	QBSS200R	QBSS201R	QBSS200R	Iv=20mcd typ. @ I _F =20mA / λ _D :625nm typ.	1500
QBSS201S	QBSS200S	QBSS201S	QBSS200S	Iv=10mcd typ. @ I _F =20mA / λ _D :640nm typ.	1500
QBSS201Y	QBSS200Y	QBSS201Y	QBSS200Y	Iv=30mcd typ. @ I _F =20mA / λ _D :590nm typ.	1500
QBSS201O	QBSS200O	QBSS201O	QBSS200O	Iv=30mcd typ. @ I _F =20mA / λ _D :610nm typ.	1500
QBSS201AG	QBSS200AG	QBSS201AG	QBSS200AG	Iv=7mcd typ. @ I _F =20mA / λ _D :570nm typ.	1500
QBSS201IG	QBSS200IG	QBSS201IG	QBSS200IG	Iv=100mcd typ. @ I _F =20mA / λ _D :520nm typ.	1500
QBSS201IB	QBSS201IB	QBSS201IB	QBSS201IB	Iv=25mcd typ. @ I _F =20mA / λ _D :470nm typ.	1500

Revision History

Description:	Revision #	Revision Date
New Release of QBSS20ZXX	V1.0	03/25/2014
Fix typo on part number	V1.1	04/23/2015
Update packing spec	V1.2	07/31/2015
Add more color options	V1.3	09/01/2015

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