

QT-Brightek SMD Display Series

0.56" Three Digit SMD Display

Part No.: QBTS56ZXX

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

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	Version# 2.0	

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Introduction

Feature:

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

Application:

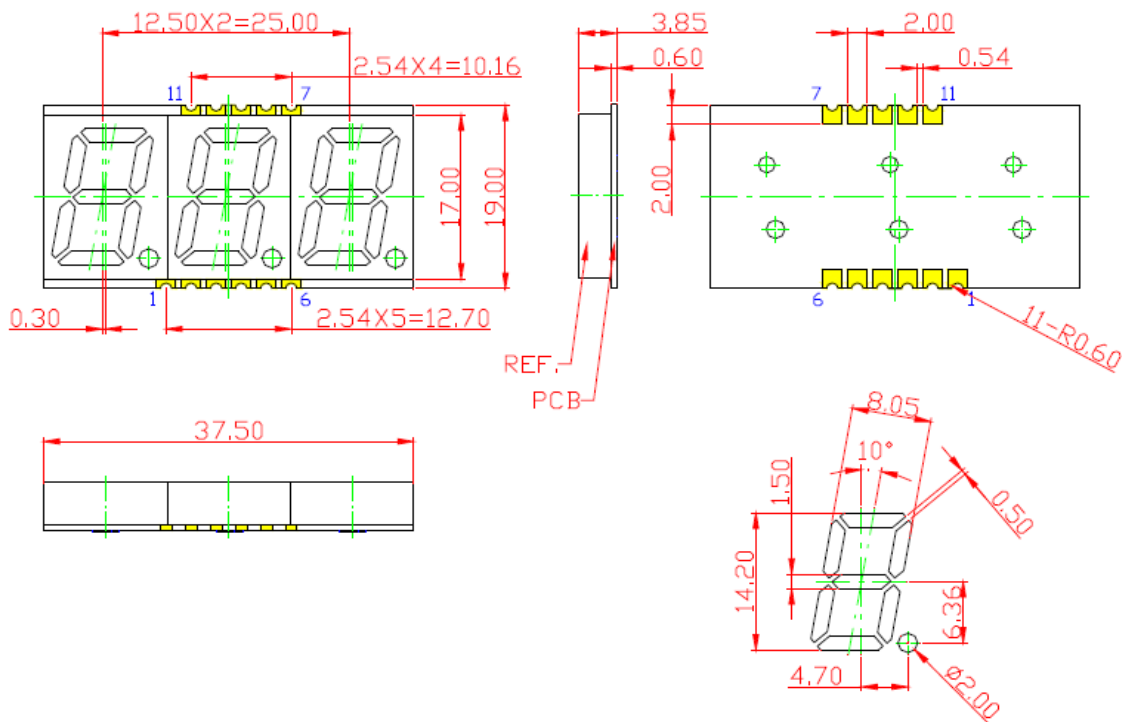
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

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.
QBTS561R	QBTS560R	AllnGaP	Red	20	2.1	2.4	619	624	629	60
QBTS561S	QBTS560S	AllnGaP	Deep Red	20	2.1	2.4	635	640	648	18
QBTS561Y	QBTS560Y	AllnGaP	Yellow	20	2.1	2.4	585	590	595	68
QBTS561O	QBTS560O	AllnGaP	Orange	20	2.0	2.4	601	608	613	60
QBTS561AG	QBTS560AG	AllnGaP	Yellow Green	20	2.1	2.4	567	570	576	17
QBTS561IG	QBTS560IG	InGaN	True Green	20	3.0	3.4	515	525	530	540
QBTS561IB	QBTS560IB	InGaN	Blue	20	3.0	3.4	464	470	474	145

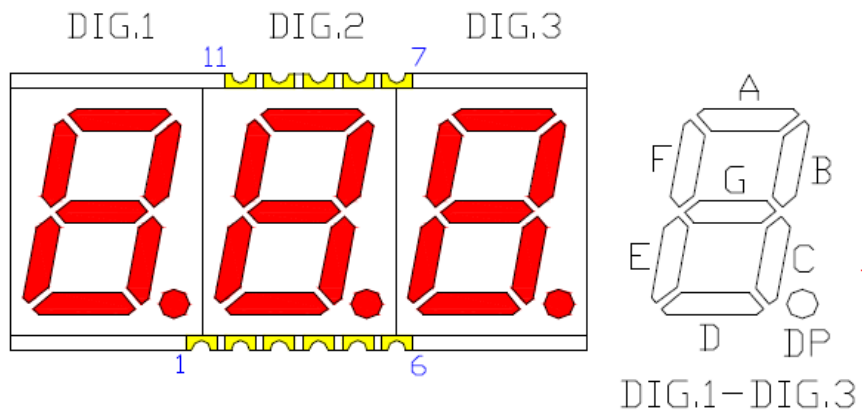
Absolute Maximum Rating

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

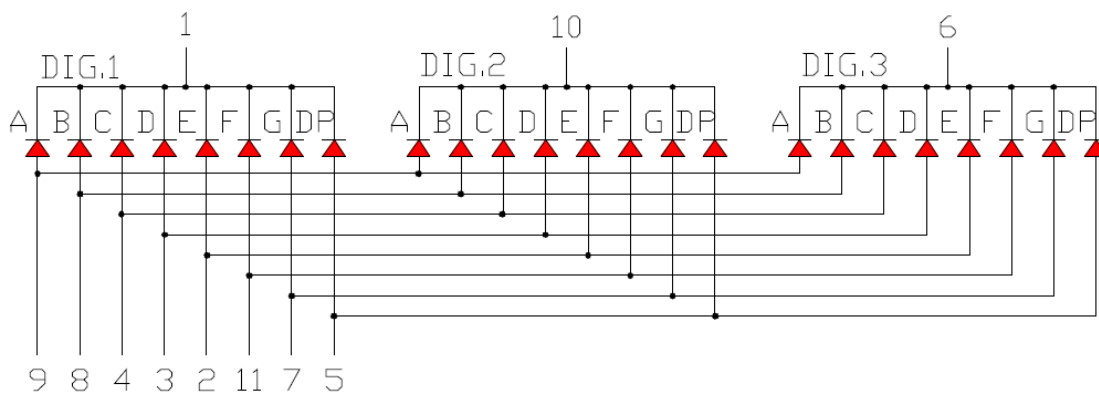
*Duty 1/10 @ 1KHz

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

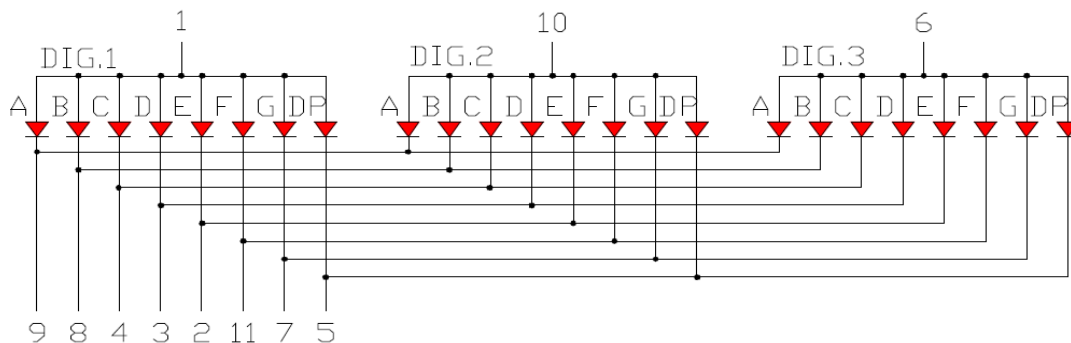
Pin Configuration



CC

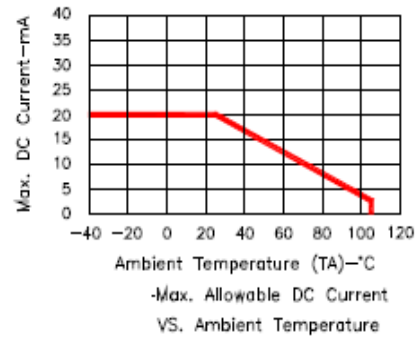
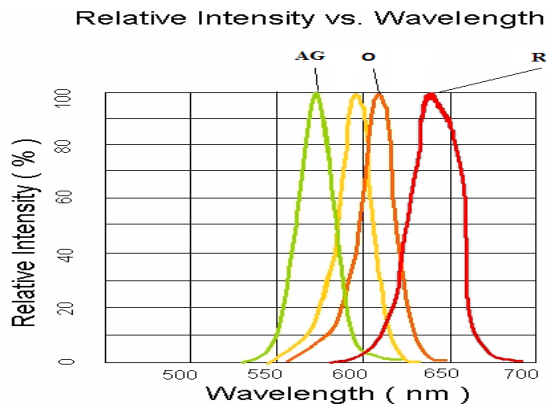
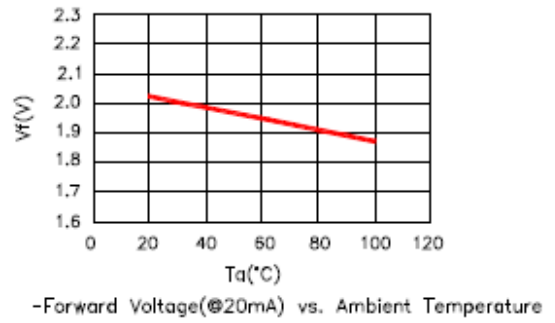
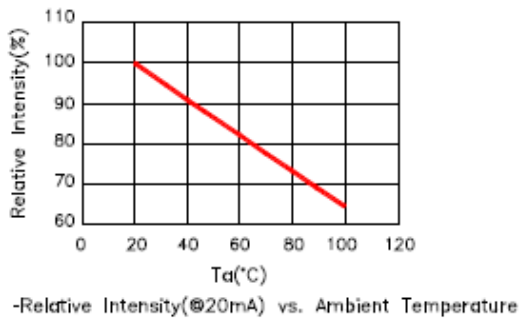
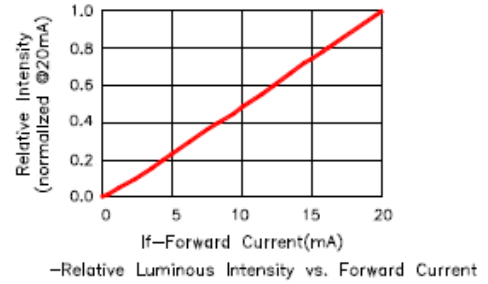
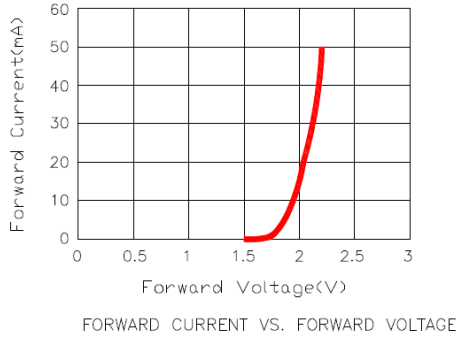


CA

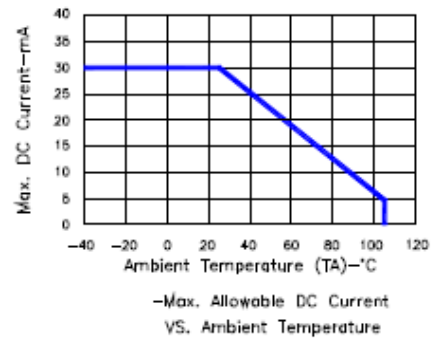
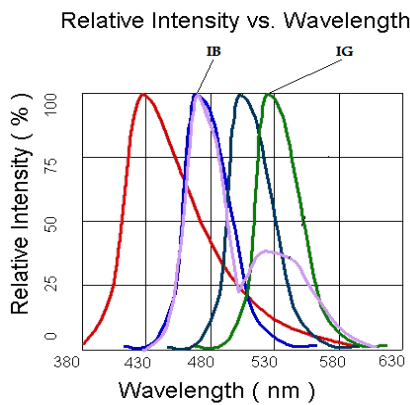
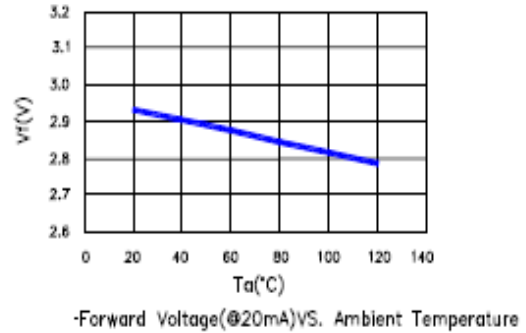
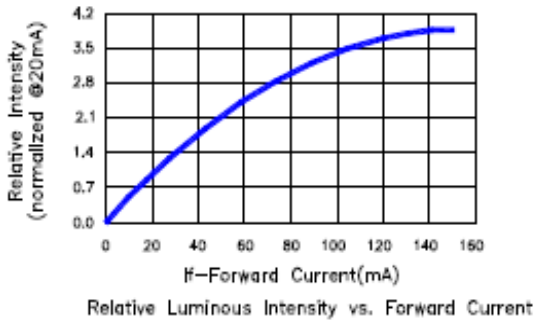
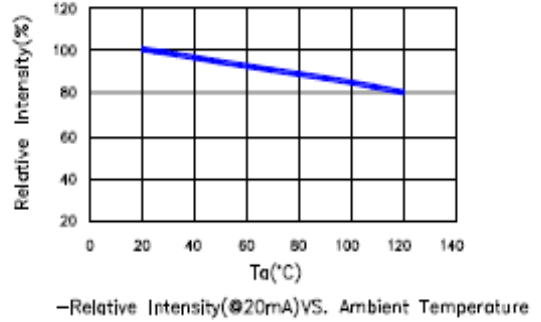
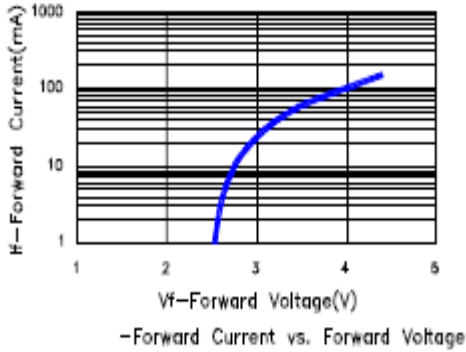


Characteristic Curves

AllnGaP

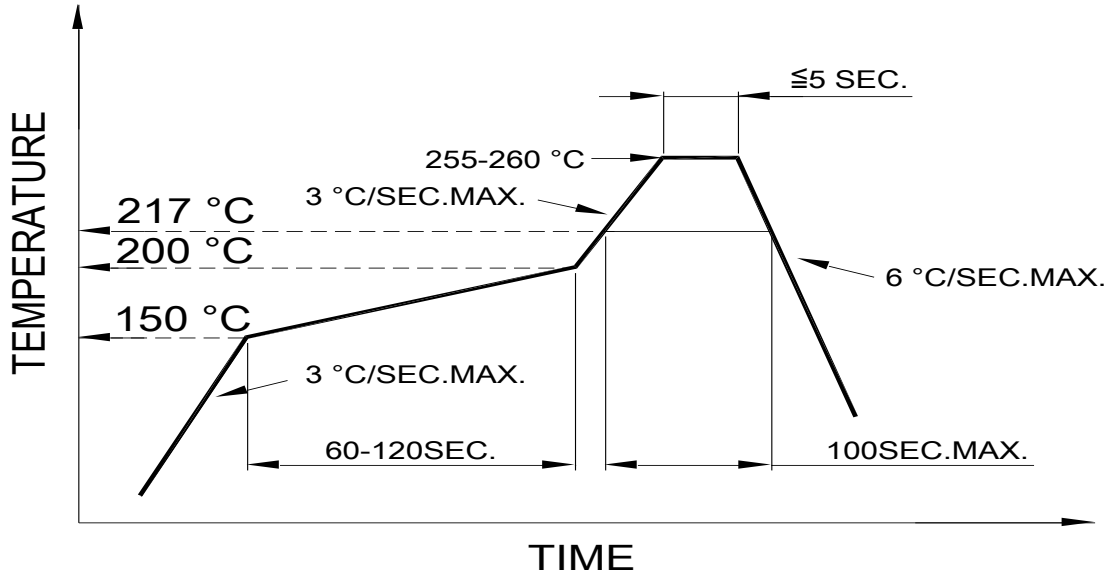


InGaN

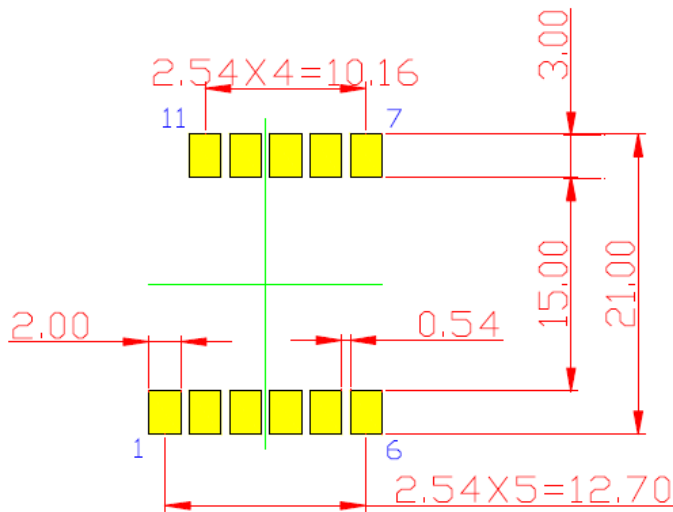


Solder Profile & Footprint

Recommended Lead-free Solder Profile
Pb free reflow soldering Profile



Recommended Pad Layout

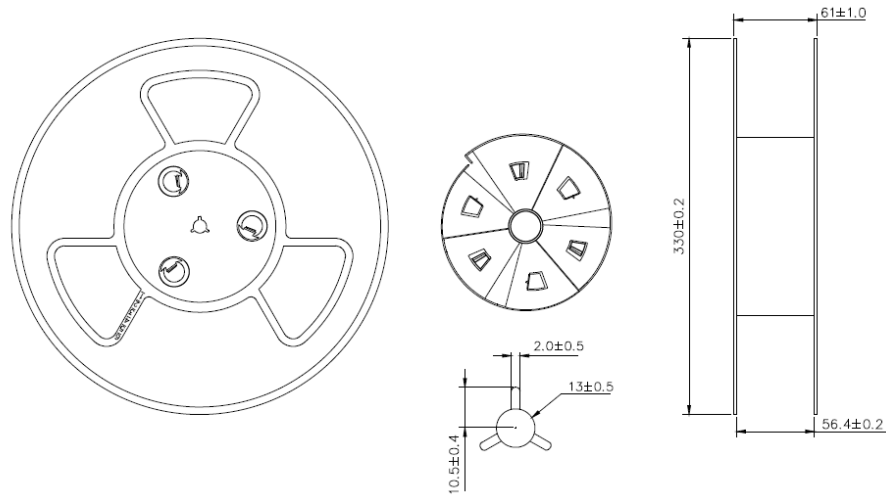


Units: mm

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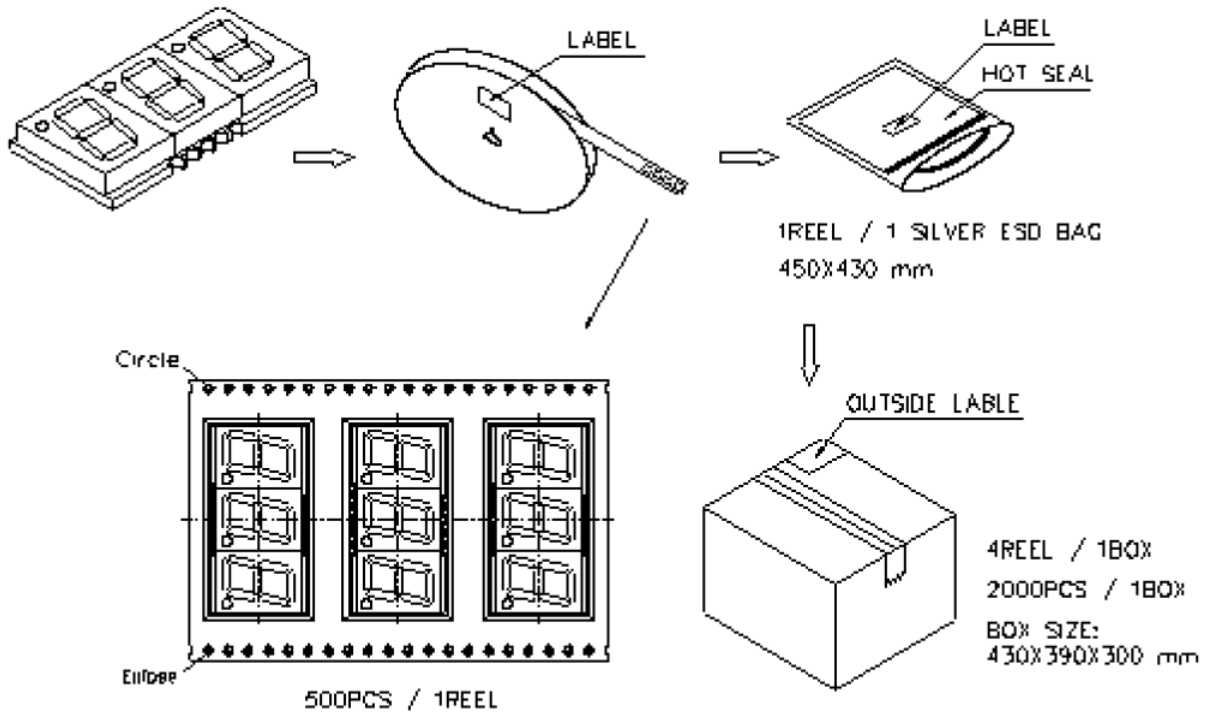
Packing

Reel Dimensions:



Unit: mm

Packing Specifications:



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Ordering Information

Product		Orderable Part #		Spec Range	Quantity per Reel
CC	CA	CC	CA		
QBTS561R	QBTS560R	QBTS561R	QBTS560R	Iv=60mcd typ. @ I _F =20mA / λ _D :624nm typ.	500
QBTS561S	QBTS560S	QBTS561S	QBTS560S	Iv=18mcd typ. @ I _F =20mA / λ _D :640nm typ.	500
QBTS561Y	QBTS560Y	QBTS561Y	QBTS560Y	Iv=68mcd typ. @ I _F =20mA / λ _D :590nm typ.	500
QBTS561O	QBTS560O	QBTS561O	QBTS560O	Iv=60mcd typ. @ I _F =20mA / λ _D :608nm typ.	500
QBTS561AG	QBTS560AG	QBTS561AG	QBTS560AG	Iv=17mcd typ. @ I _F =20mA / λ _D :570nm typ.	500
QBTS561IG	QBTS560IG	QBTS561IG	QBTS560IG	Iv=540mcd typ. @ I _F =20mA / λ _D :525nm typ.	500
QBTS561IB	QBTS560IB	QBTS561IB	QBTS560IB	Iv=145mcd typ. @ I _F =20mA / λ _D :470nm typ.	500

Revision History

Description:	Revision #	Revision Date
New Release of QBTS56ZXX	V1.0	06/24/2011
Amend format and optical spec/ Add packing spec	V1.1	03/24/2014
Add more color options / Update packing spec	V1.2	03/24/2015
Update dimension drawing and brightness	V1.3	11/19/2015
Update PCB drawing and brightness	V2.0	03/15/2021

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.