

QT-Brightek SMD Display Series

0.56" Four Digit SMD Display

Part No.: QBQS56ZXX

XX= Color

Z= 1: Common Cathode

Z = 0: Common Anode

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Introduction

Feature:

- 0.56" four digit seven segments display
- Low power consumption
- Packed in tape & reel
- White segment and grey surface
- XX = color code
- Z=1: Common Cathode or 0: Common Anode

Description:

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

Application:

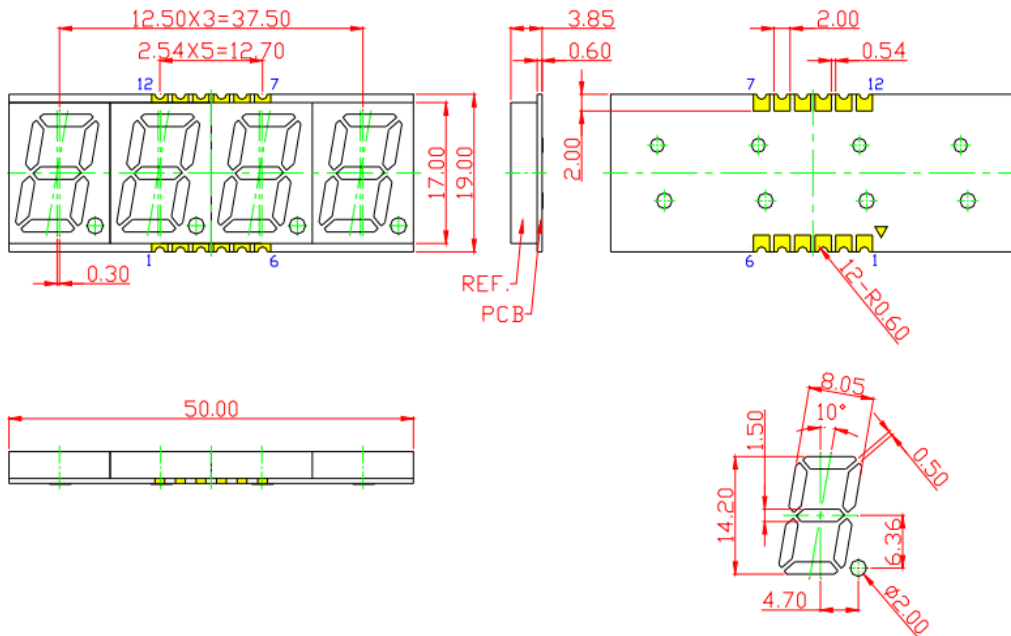
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

Certification & Compliance:

- ISO9001
- RoHS Compliant



Dimension:



Units: mm / tolerance = +/-0.25mm

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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.
QBQS561R	QBQS560R	AllnGaP	Red	20	2.1	2.4	619	625	629	60
QBQS561S	QBQS560S	AllnGaP	Deep Red	20	2.1	2.4	635	640	648	18
QBQS561O	QBQS560O	AllnGaP	Orange	20	2.0	2.4	601	605	613	58
QBQS561Y	QBQS560Y	AllnGaP	Yellow	20	2.1	2.4	585	590	595	68
QBQS561AG	QBQS560AG	AllnGaP	Yellow Green	20	2.1	2.4	567	571	576	18
QBQS561IG	QBQS560IG	InGaN	True Green	20	3.0	3.4	515	520	530	540
QBQS561IB	QBQS560IB	InGaN	Blue	20	3.0	3.4	464	470	474	100

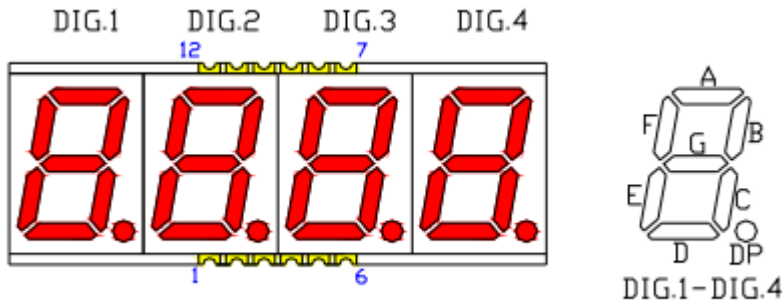
Absolute Maximum Rating

Material	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SO_L} (°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

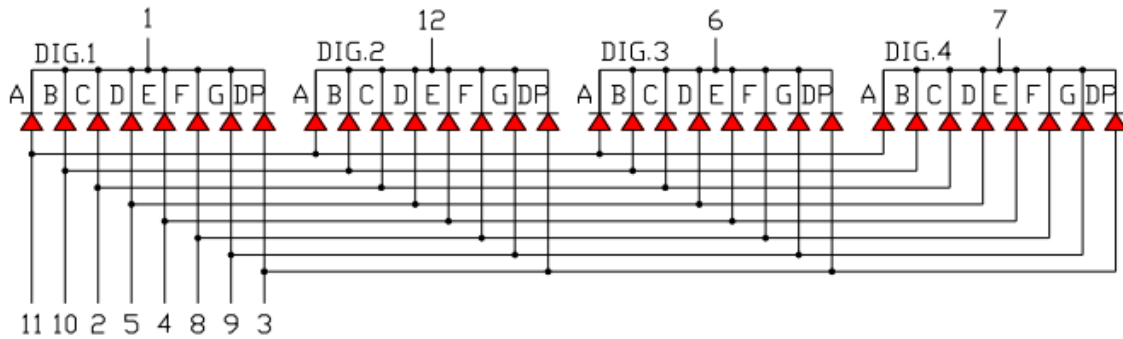
*Duty 1/10 @ 1KHz

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

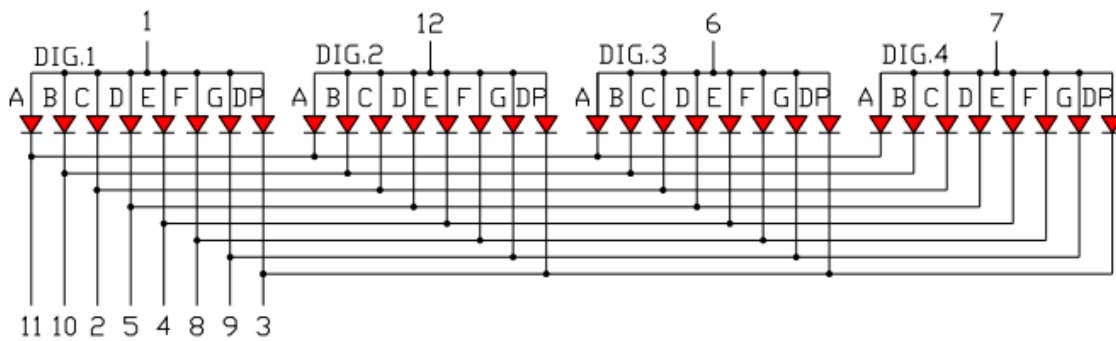
Pin Configuration



CC

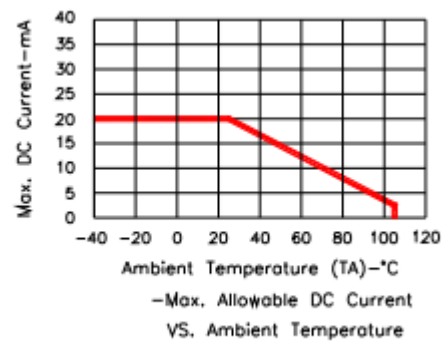
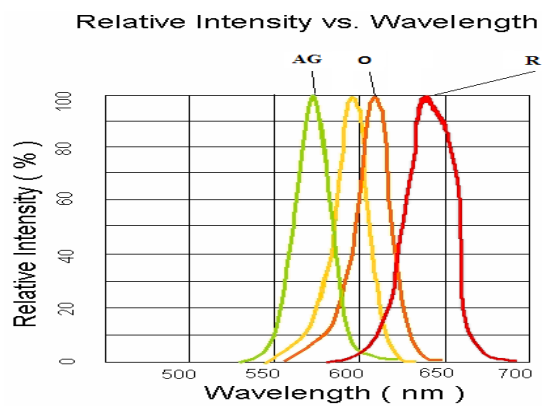
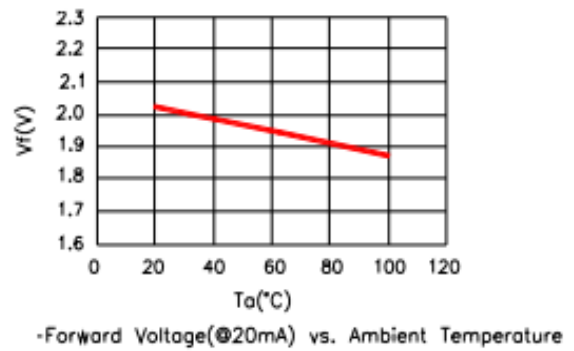
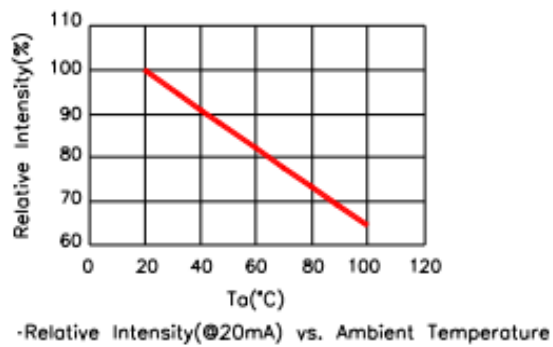
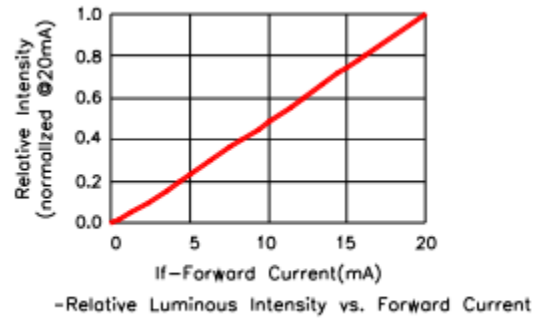
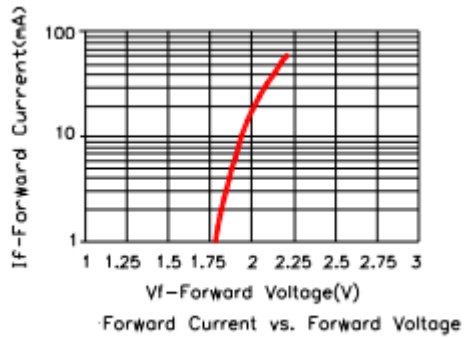


CA

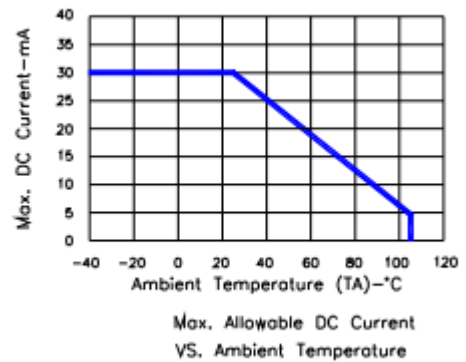
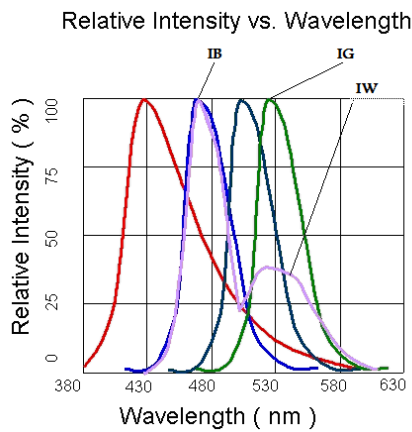
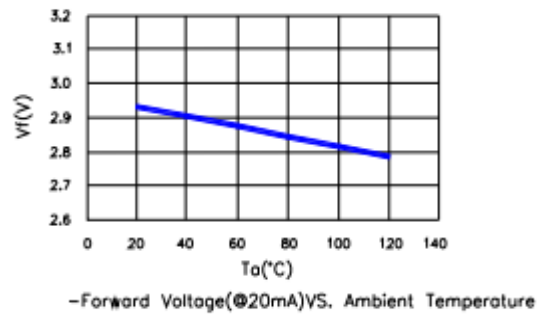
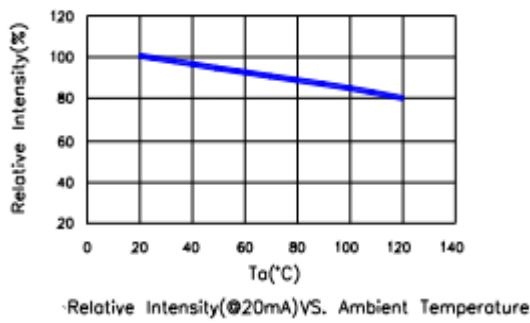
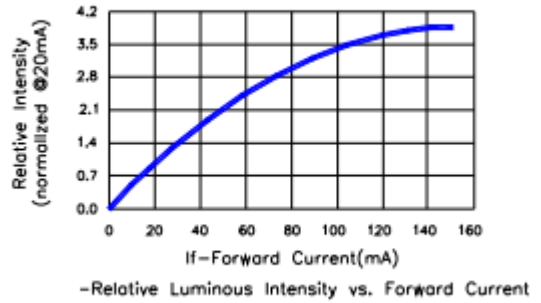
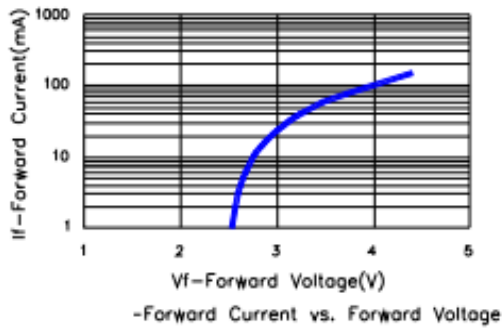


Characteristic Curves

AllnGaP



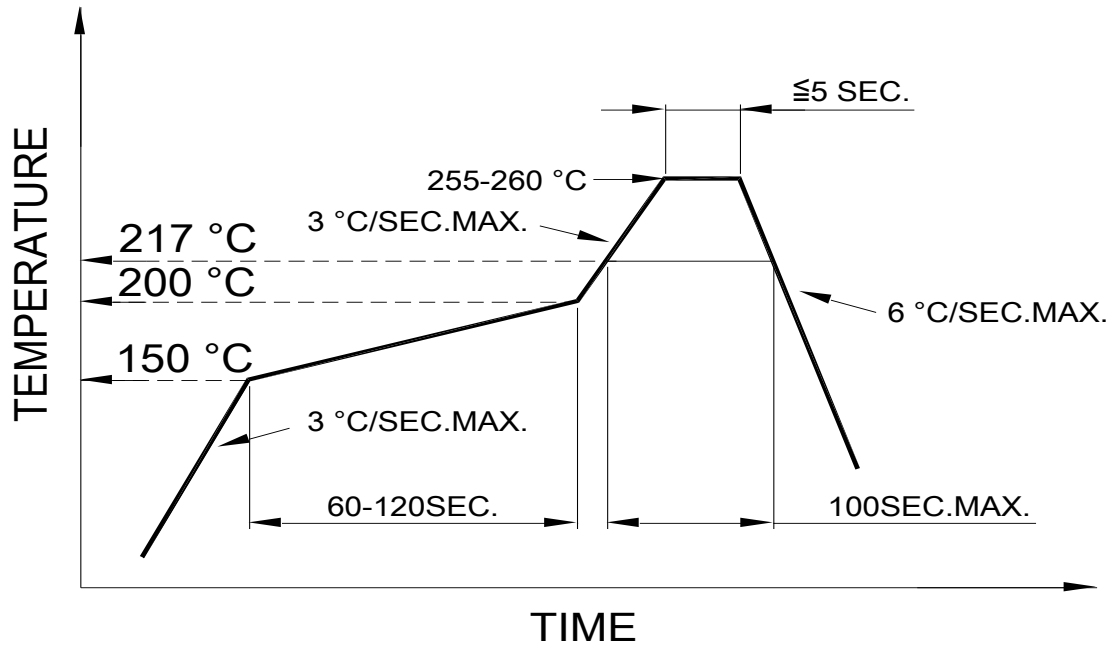
InGaN



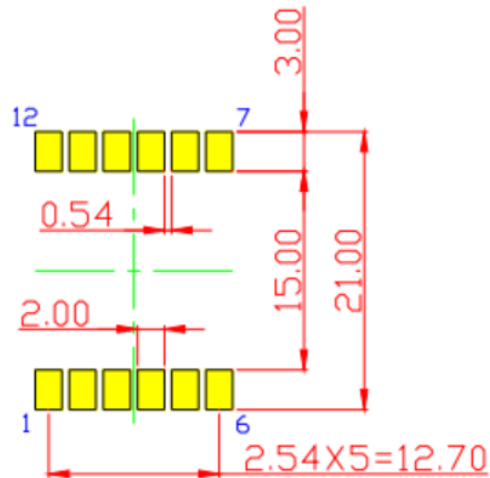
Solder Profile & Footprint

Lead-free Solder Profile:

Pb free reflow soldering Profile



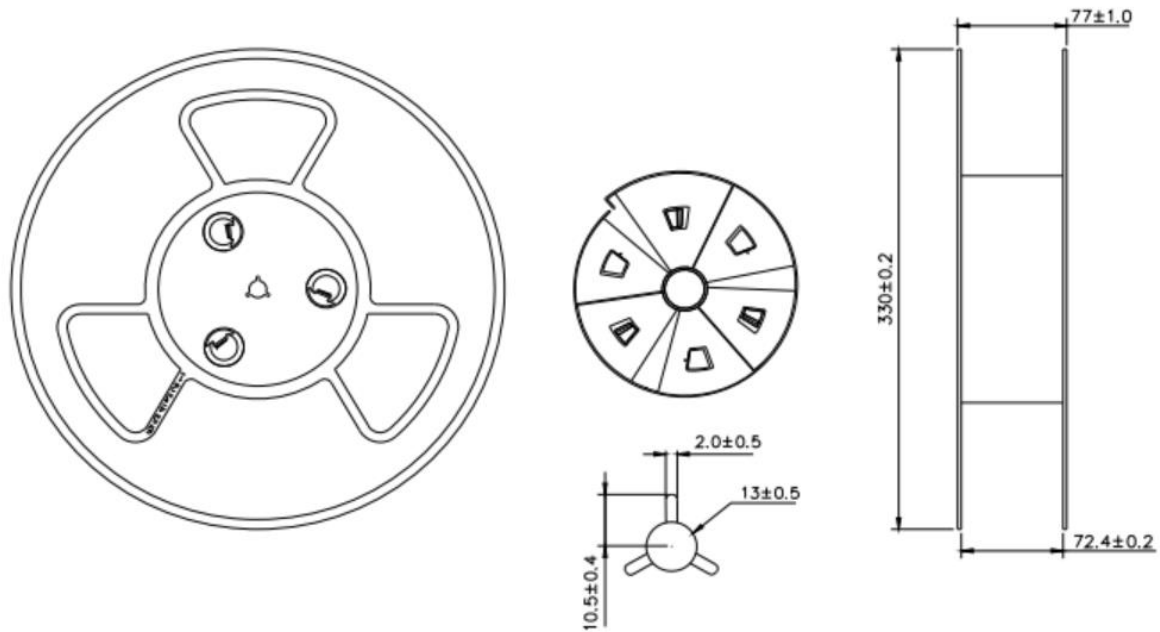
Recommended Pad Layout



Units: mm

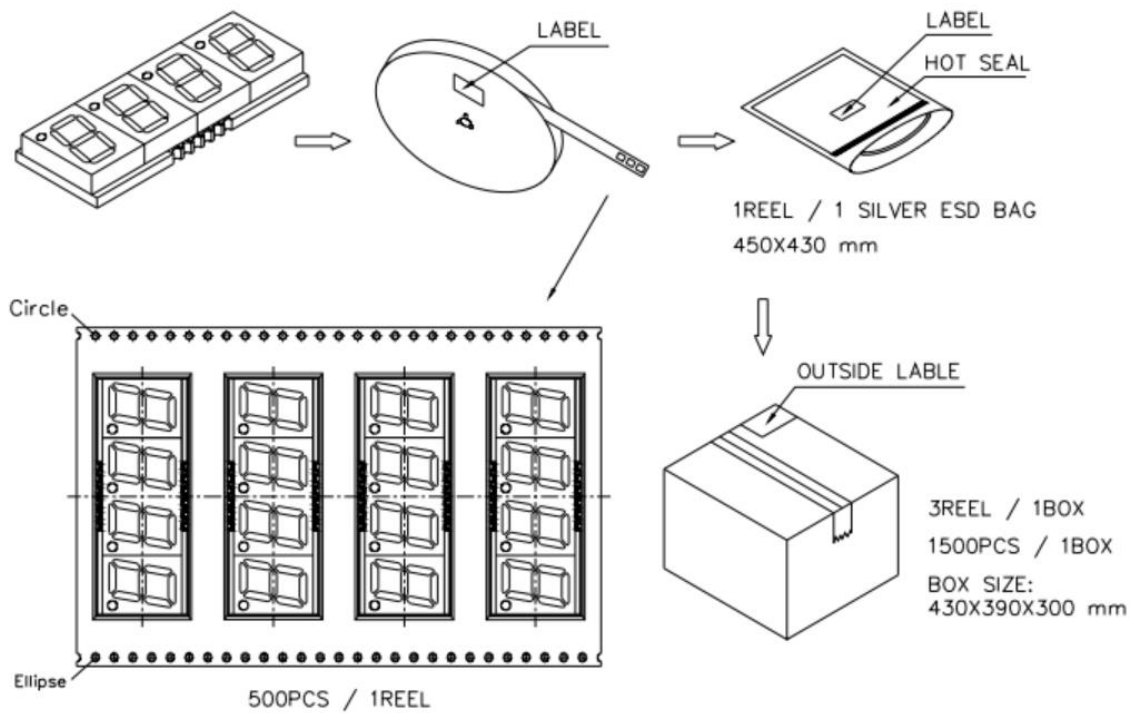
Packing & Labeling

Reel Dimension:



Unit: mm

Packing and Label Specification:



Ordering Information

Product		Orderable Part #		Spec Range	Quantity per Reel
CC	CA	CC	CA		
QBQS561R	QBQS560R	QBQS561R	QBQS560R	I _v =60mcd typ. @ I _F =20mA, λ _D : 625nm typ.	500
QBQS561S	QBQS560S	QBQS561S	QBQS560S	I _v =18mcd typ. @ I _F =20mA, λ _D : 640nm typ.	500
QBQS561O	QBQS560O	QBQS561O	QBQS560O	I _v =58mcd typ. @ I _F =20mA, λ _D : 605nm typ.	500
QBQS561Y	QBQS560Y	QBQS561Y	QBQS560Y	I _v =68mcd typ. @ I _F =20mA, λ _D : 590nm typ.	500
QBQS561AG	QBQS560AG	QBQS561AG	QBQS560AG	I _v =18mcd typ. @ I _F =20mA, λ _D : 571nm typ.	500
QBQS561IG	QBQS560IG	QBQS561IG	QBQS560IG	I _v =540mcd typ. @ I _F =20mA, λ _D : 520nm typ.	500
QBQS561IB	QBQS560IB	QBQS561IB	QBQS560IB	I _v =100mcd typ. @ I _F =20mA, λ _D : 470nm typ.	500

Revision History

Description:	Revision #	Revision Date
New Release of QBQS56ZXX	V1.0	06/24/2011
Update spec, add more color options	V1.1	11/19/2015
Update PCB drawing, specs and brightness	V2.0	03/15/2021

Disclaimer

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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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