

Feature:

- 2.30" Dual digit sixteen segment display
- Low power consumption
- Packed in Board
- Gray face and White segment
- AlInGaP Technology (R, Y, AG)
- XX= color; Z=1: Common Cathode or 0: Common Anode

Description:

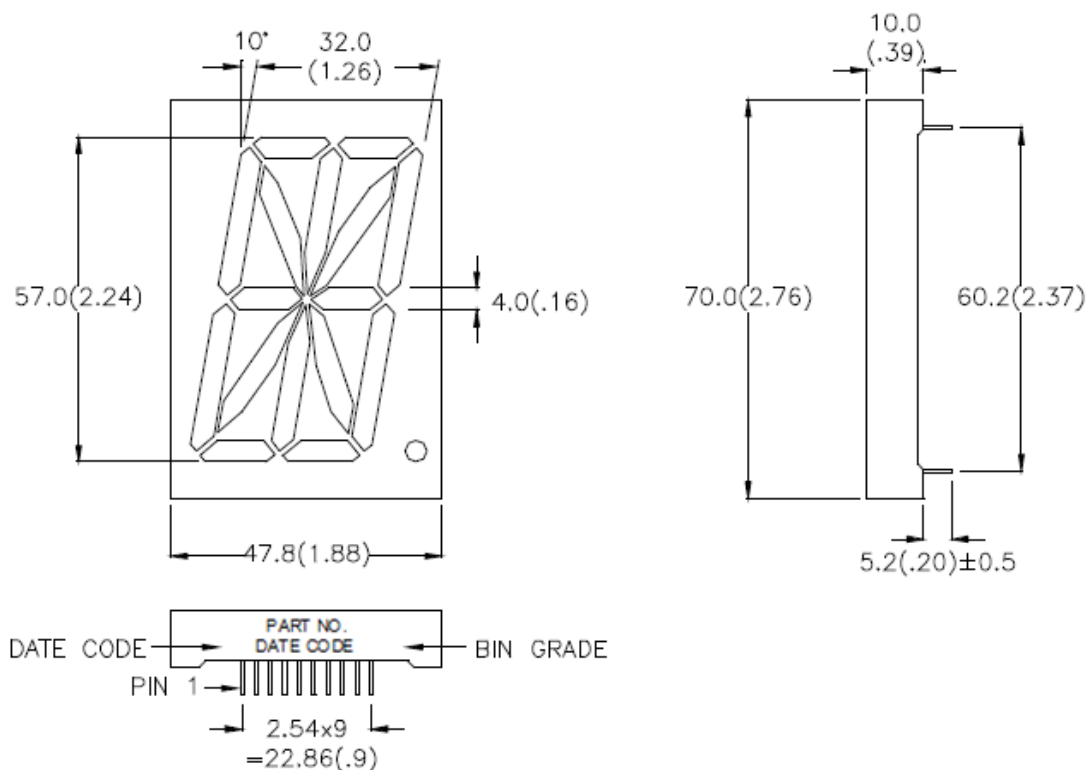
These 2.30" Dual digit sixteen segment displays are made with white segment and gray surface. The viewing distance is up to seven meters.

Application:

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

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

**Dimension:**

Units: mm / tolerance = +/-0.30mm

Electrical / Optical Characteristic (T=25 °C)

Product		Material	Color	I _F (mA)	V _F (V)		λ _D (nm)	λ _P (nm)	I _V (mcd)
CC	CA				Typ.		Typ.	Typ.	Typ.
QBAS230R1	QBAS230R0	AlInGaP	Red	20	2.1 ^{*1}	4.2 ^{*2}	630	640	77 ^{*2}
QBAS230Y1	QBAS230Y0	AlInGaP	Yellow	20	2.1 ^{*1}	4.2 ^{*2}	590	592	106 ^{*2}
QBAS230AG1	QBAS230AG0	AlInGaP	Yellow Green	20	2.1 ^{*1}	4.2 ^{*2}	570	572	42 ^{*2}

Absolute Maximum Rating

Material	P _d (mW)	Derating liner from 25 °C per dice (mW/°C)	I _F (mA)	I _{PF} (mA)	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**
AlInGaP	65 ^{*1} 130 ^{*2}	0.33	25	90	5	-25 to + 85	-25 to +85	260

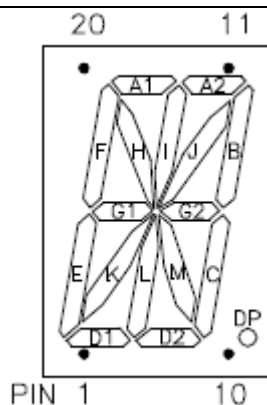
*1 Per Dice (dp)

*2 Per Segment

*Duty 1/10 @ 1KHz

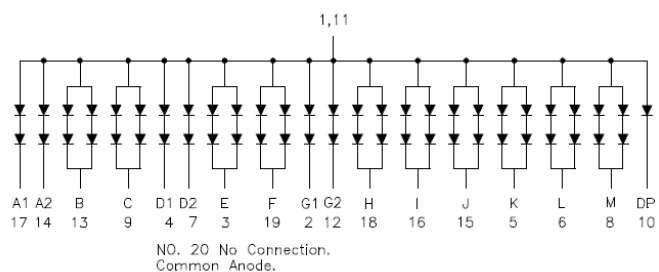
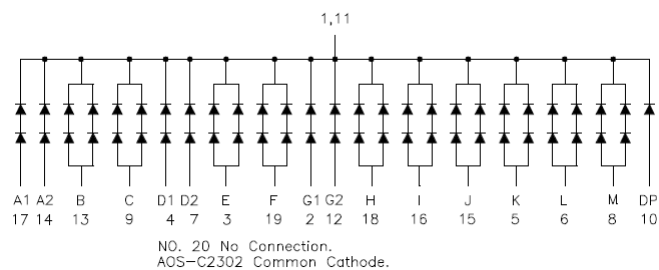
** IR Reflow for no more than 5 sec @ 260 °C

Pin Configuration



CA

CC



Characteristic Curves: (R)

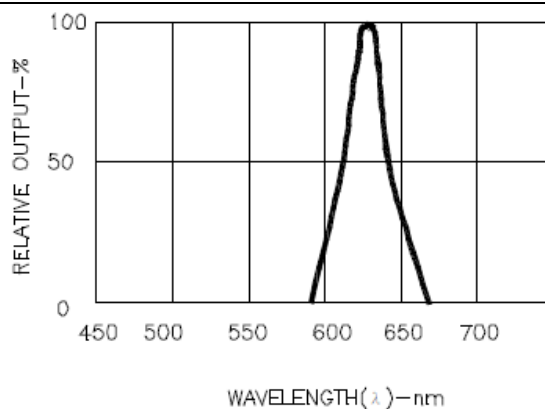


Fig.1 SPECTRAL RESPONSE

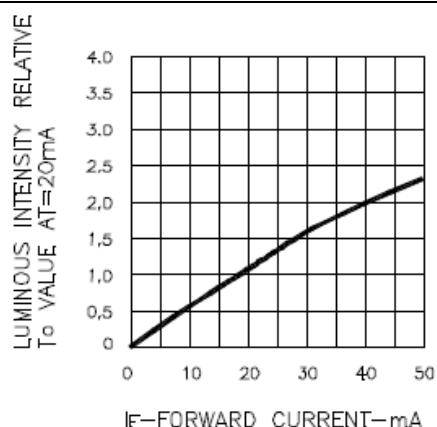
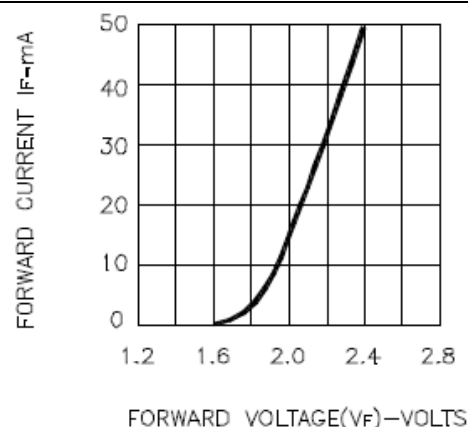
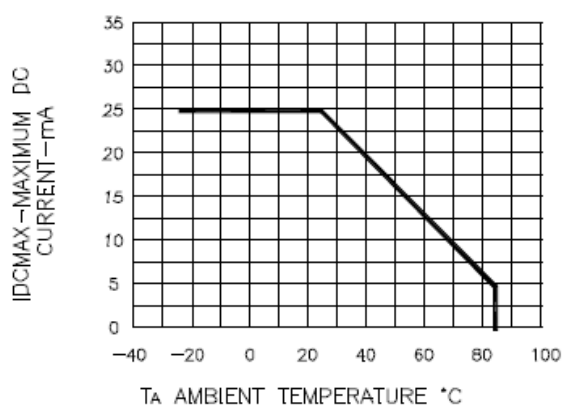

 Fig.2 RELATIVE LUMINOUS
INTENSITY VS. FORWARD CURRENT

 Fig.3 FORWARD CURRENT VS
FORWARD VOLTAGE

 Fig.4 MAXIMUM ALLOWABLE DC
CURRENT PER SEGMENT VS. A
FUNCTION OF AMBIENT TEMPERATURE

 Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f=1KHz)

(Y)

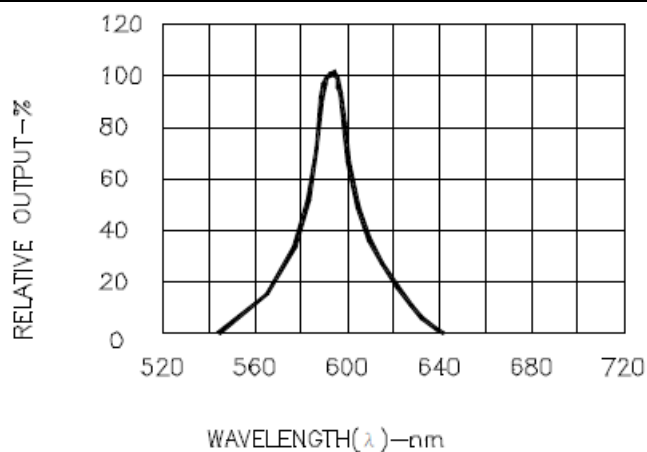


Fig.1 SPECTRAL RESPONSE

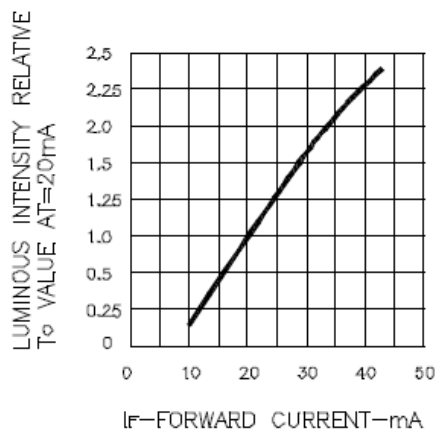


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

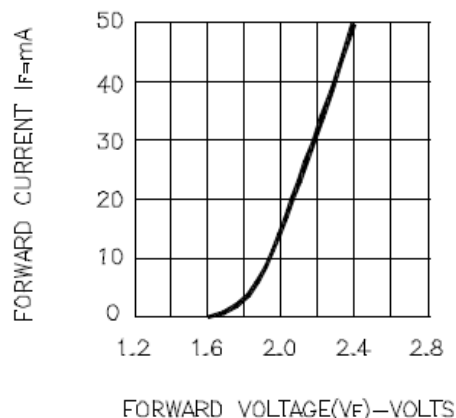


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

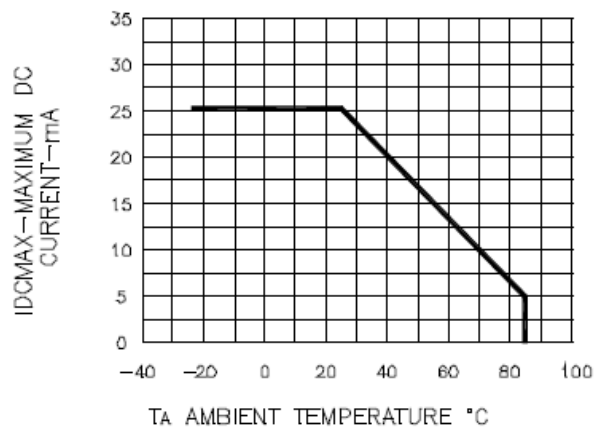
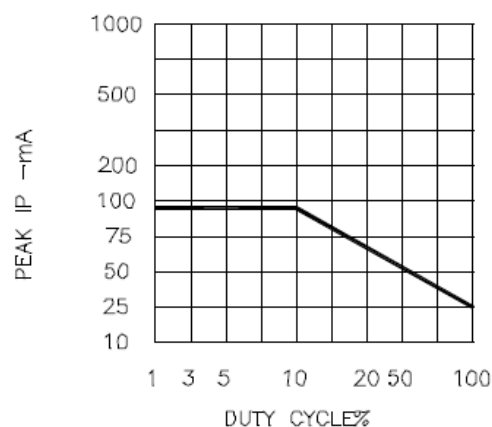


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE


 Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE $f=1\text{kHz}$)

(AG)

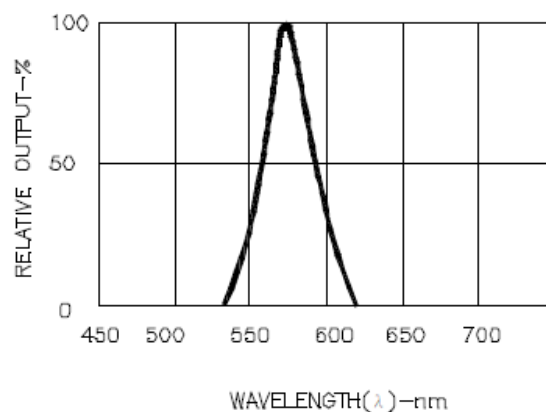
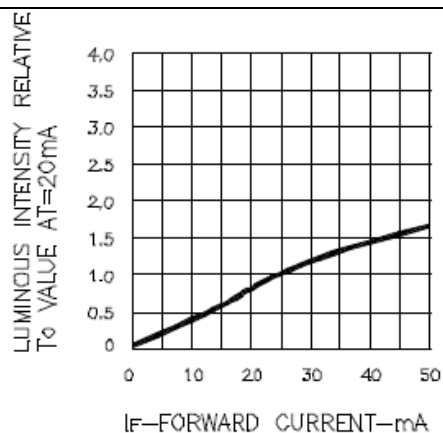
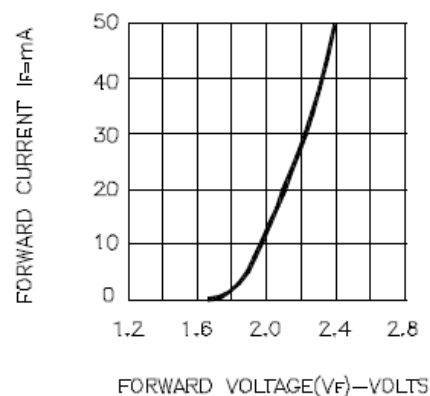
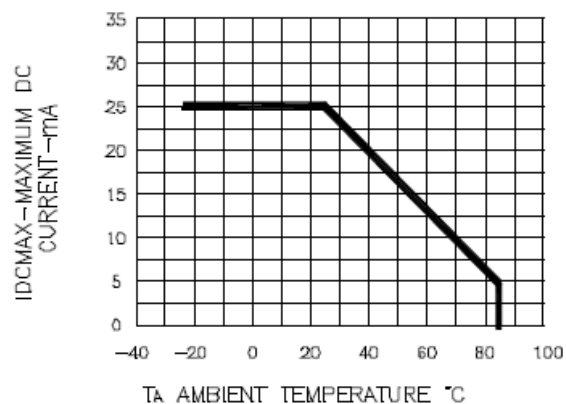
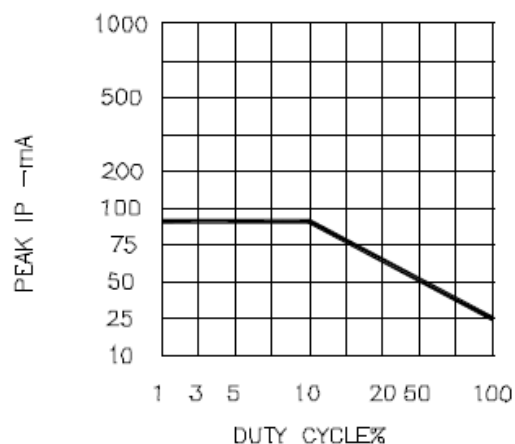
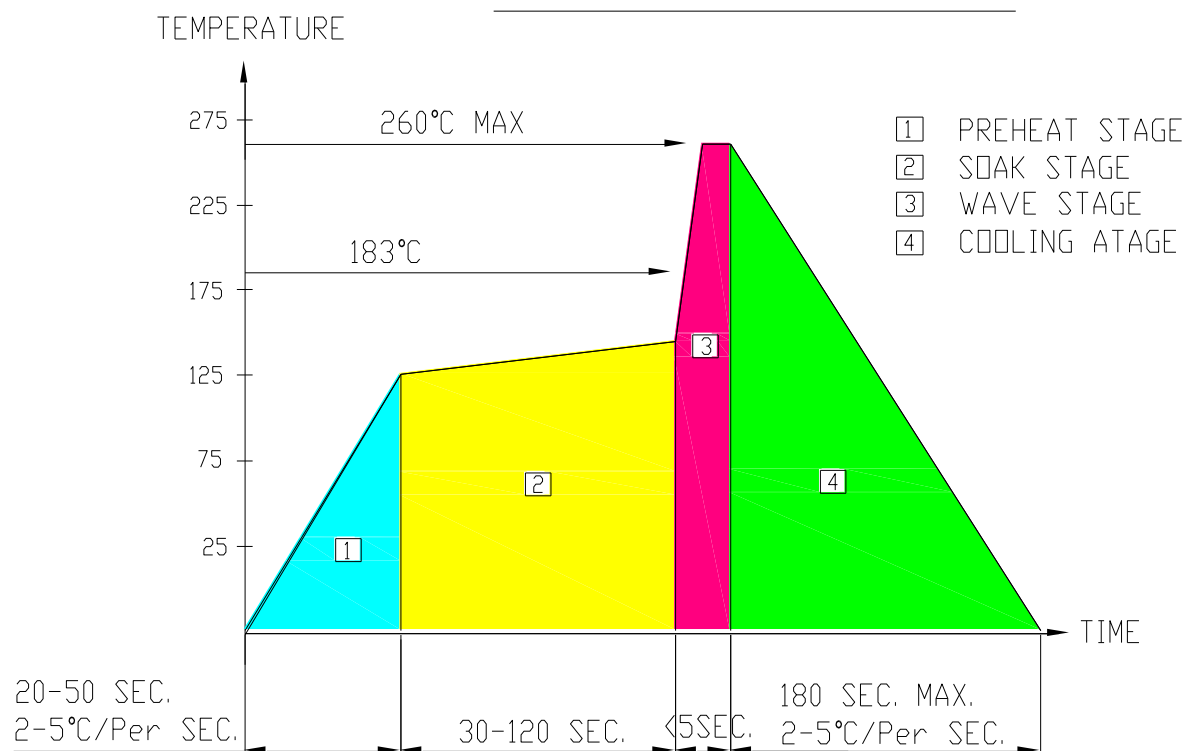


Fig.1 SPECTRAL RESPONSE

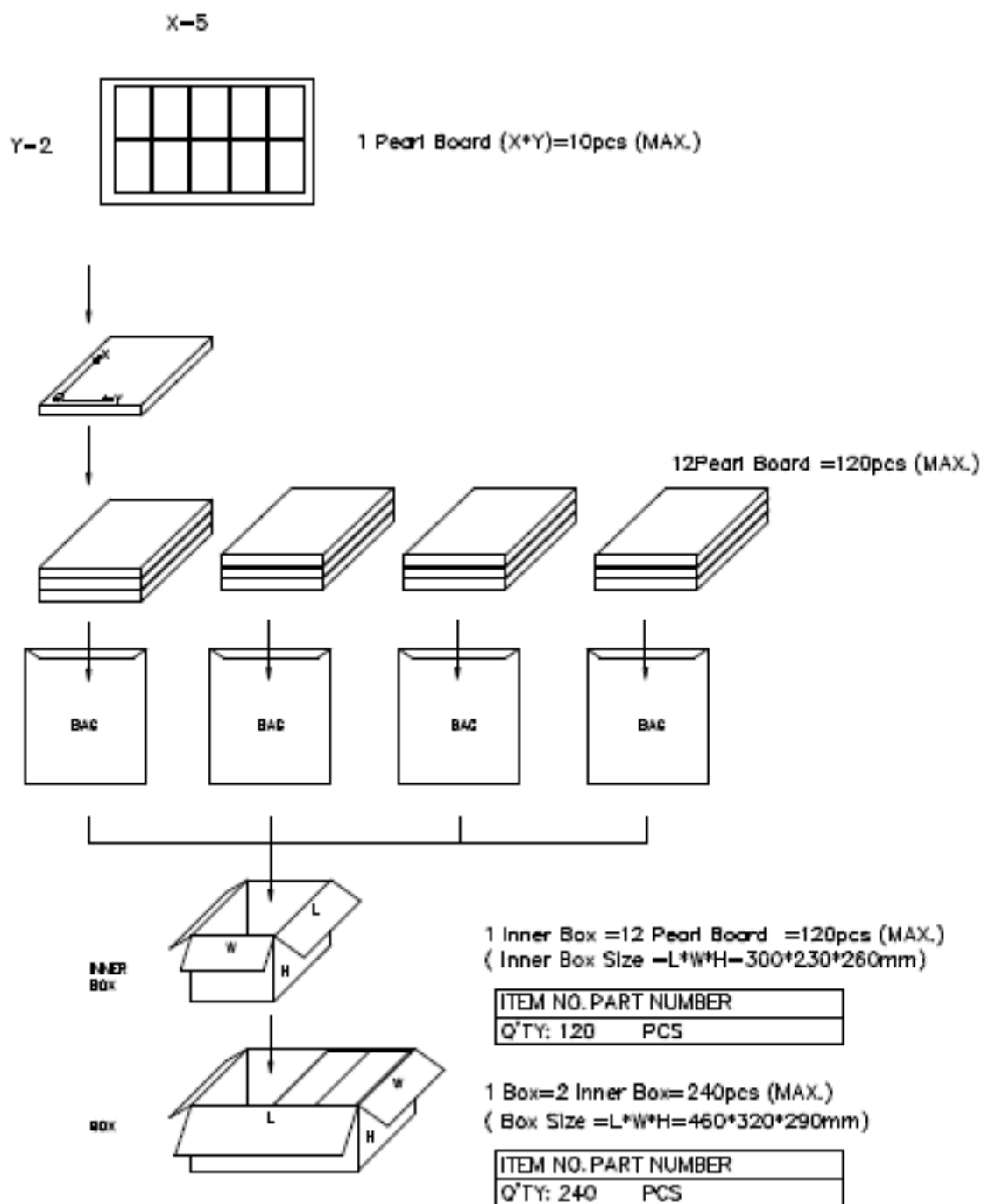

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(REFRESH RATE $f=1\text{KHz}$)

Solder Profile & Footprint:

WAVE SOLDER PROFILE



Packing & Labeling:



Ordering Information:

Product		Orderable Part #		Spec Range	Quantity Per Board
CC	CA	CC	CA		
QBAS230R1	QBAS230R0	QBAS230R1	QBAS230R0	lv= 77 mcd typ. @ IF=20mA	10 pcs
QBAS230Y1	QBAS230Y0	QBAS230Y1	QBAS230Y0	lv= 106 mcd typ. @ IF=20mA	10 pcs
QBAS230AG1	QBAS230AG0	QBAS230AG1	QBAS230AG0	lv= 42 mcd typ. @ IF=20mA	10 pcs



QBAS230XXZ_series

2.30" Single Digit
Alphanumeric Display

Revision History:

Description:	Revision #	Revision Date
New Release of QBAS230XXZ_series	V1.0	02/06/2012

Product: QBAS230XXZ_series	Date: February 06, 2012	Page 10 of 10
	Version# 1.0	