

**Feature:**

- 2.30" Dual digit sixteen segment display
- Low power consumption
- Packed in Board
- Gray face and White segment
- AllInGaP 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:**

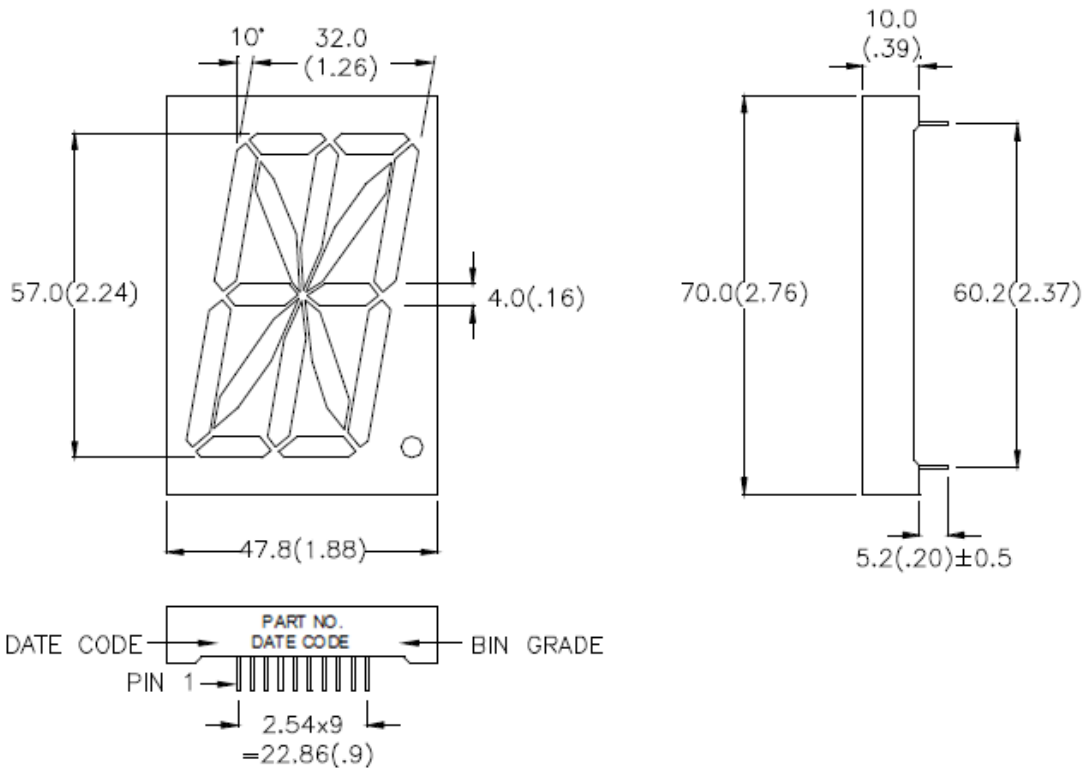
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.30mm

**Electrical / Optical Characteristic (T=25 °C)**

Product		Material	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)	λ <sub>P</sub> (nm)	I <sub>V</sub> (mcd)
CC	CA				Typ.		Typ.	Typ.	Typ.
QBAS230R1	QBAS230R0	AllnGaP	Red	20	2.1 <sup>*1</sup>	4.2 <sup>*2</sup>	630	640	77 <sup>*2</sup>
QBAS230Y1	QBAS230Y0	AllnGaP	Yellow	20	2.1 <sup>*1</sup>	4.2 <sup>*2</sup>	590	592	106 <sup>*2</sup>
QBAS230AG1	QBAS230AG0	AllnGaP	Yellow Green	20	2.1 <sup>*1</sup>	4.2 <sup>*2</sup>	570	572	42 <sup>*2</sup>

**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	Derating liner from 25 °C per dice (mA/°C)	I <sub>F</sub> (mA)	I* <sub>PF</sub> (mA)	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AllnGaP	65 <sup>*1</sup> 130 <sup>*2</sup>	0.33	25	90	5	-25 to + 85	-25 to +85	260

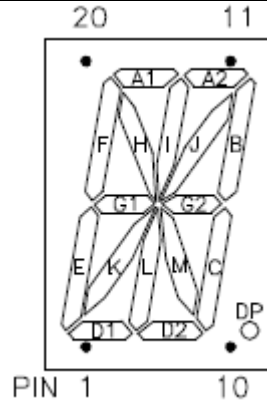
\*1 Per Dice (dp)

\*2 Per Segment

\*Duty 1/10 @ 1KHz

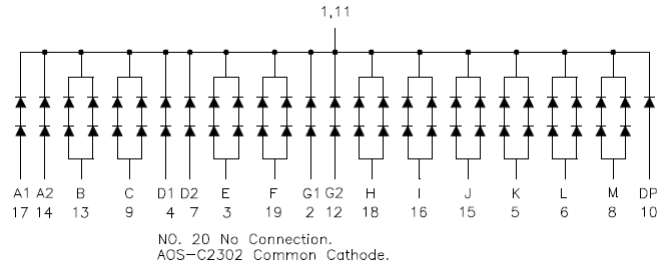
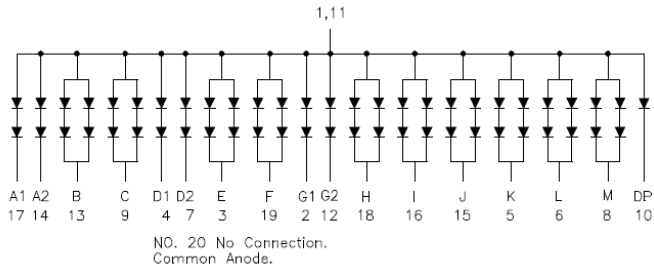
\*\* IR Reflow for no more than 5 sec @ 260 °C

**Pin Configuration**

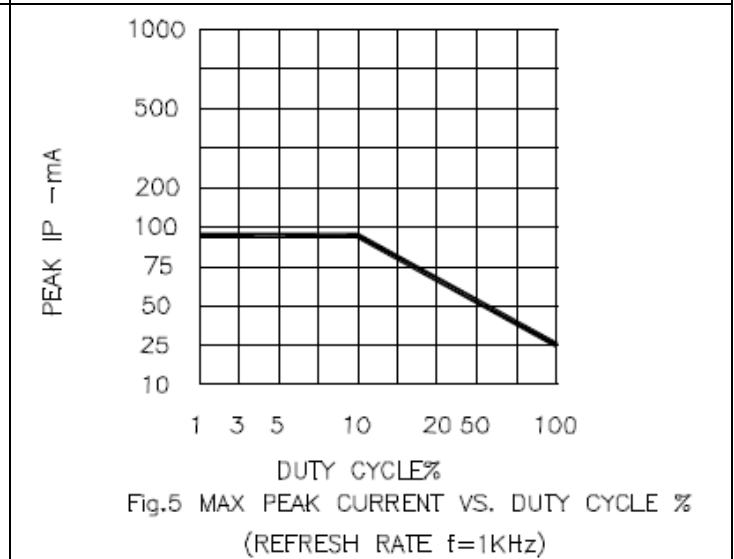
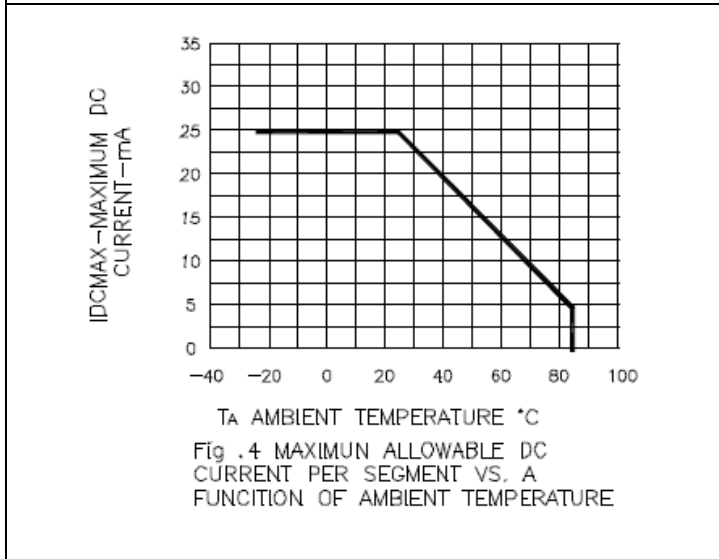
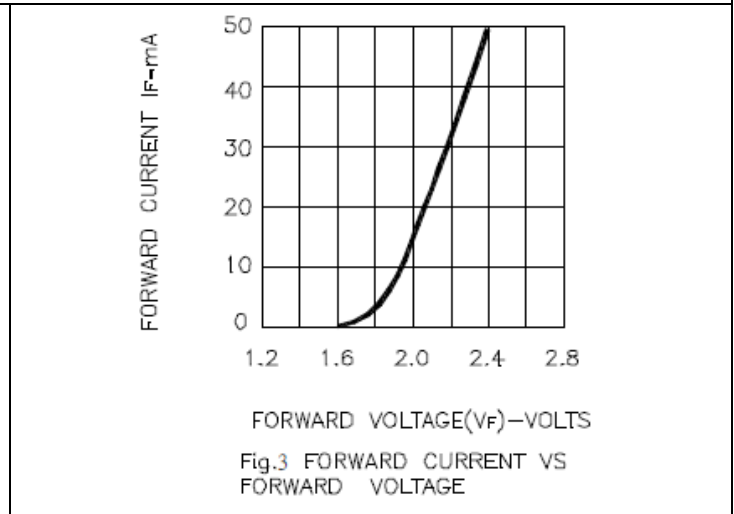
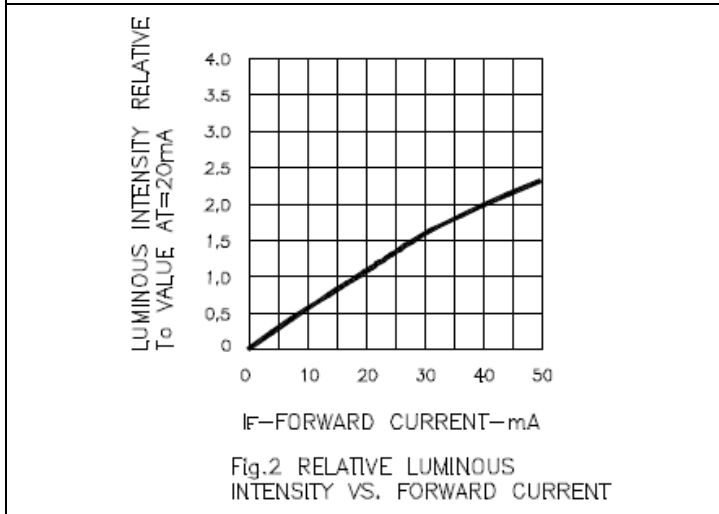
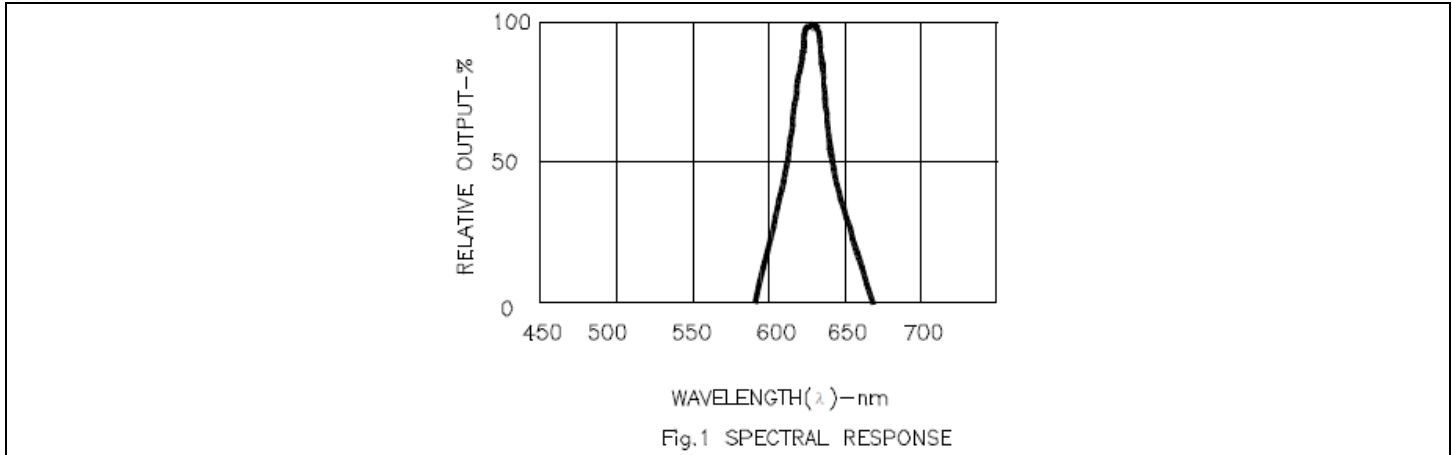


**CA**

**CC**



**Characteristic Curves:  
(R)**



(Y)

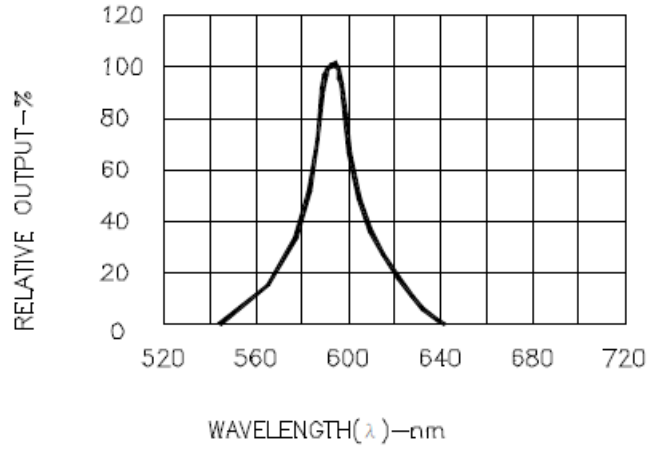


Fig.1 SPECTRAL RESPONSE

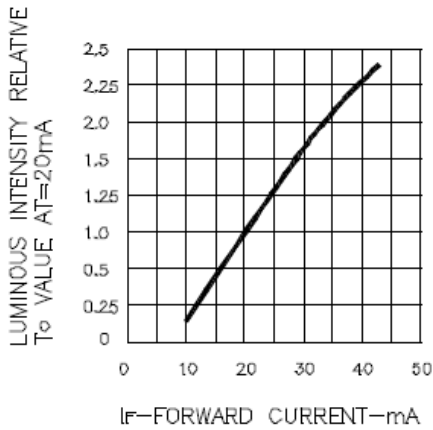


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

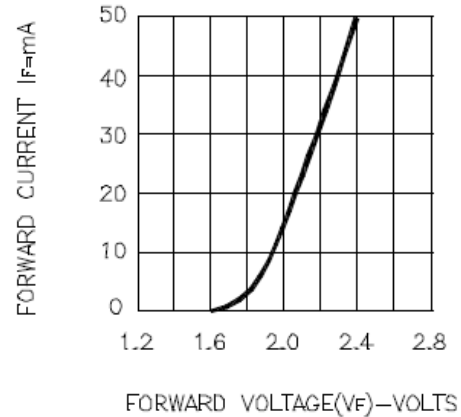


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

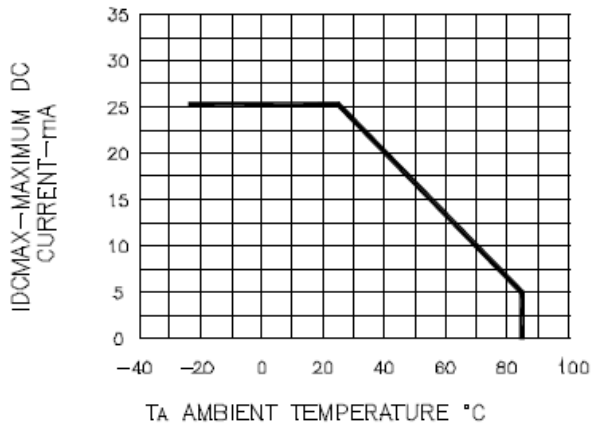


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

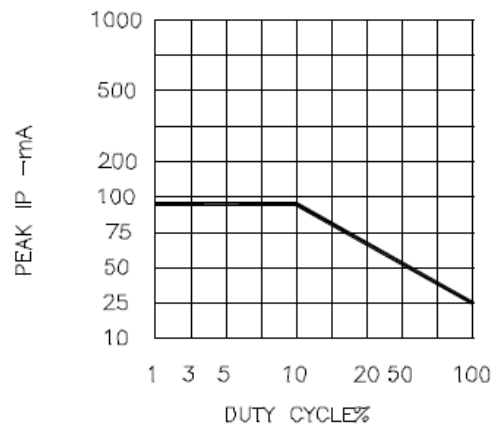


Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1kHz)

(AG)

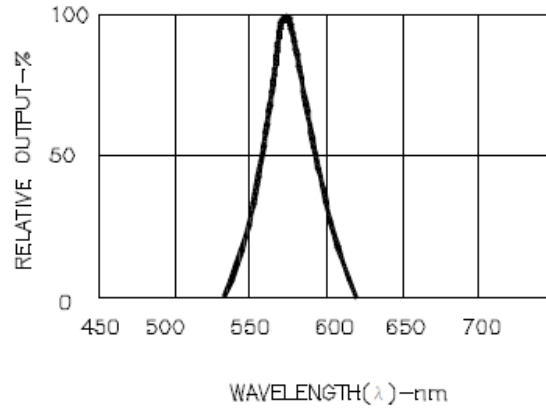


Fig.1 SPECTRAL RESPONSE

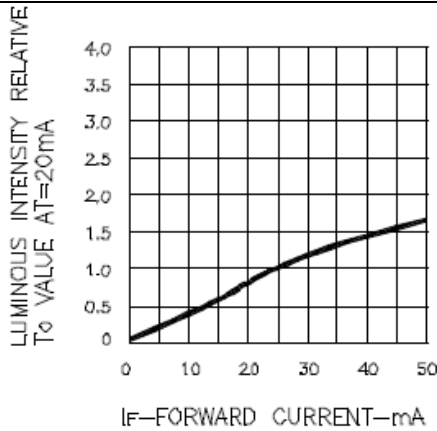


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

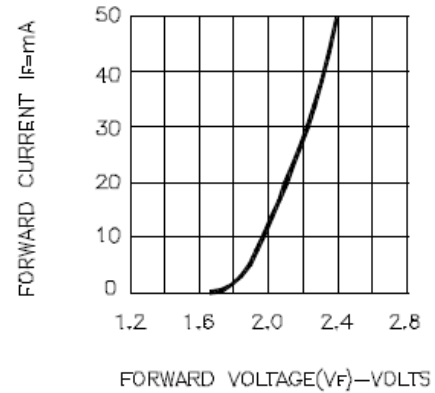


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

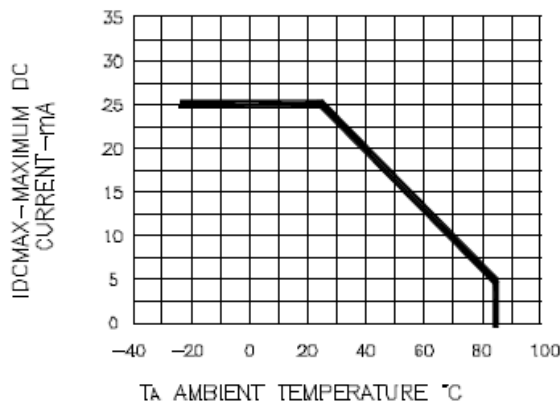


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

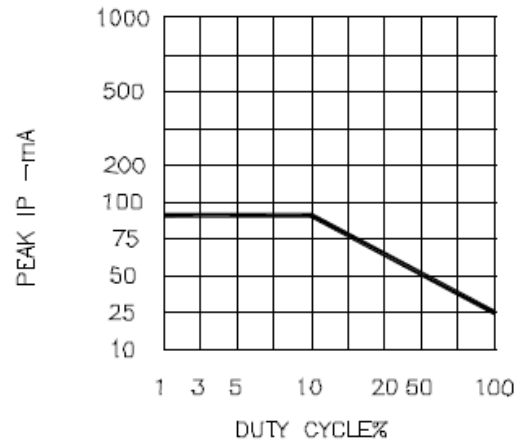
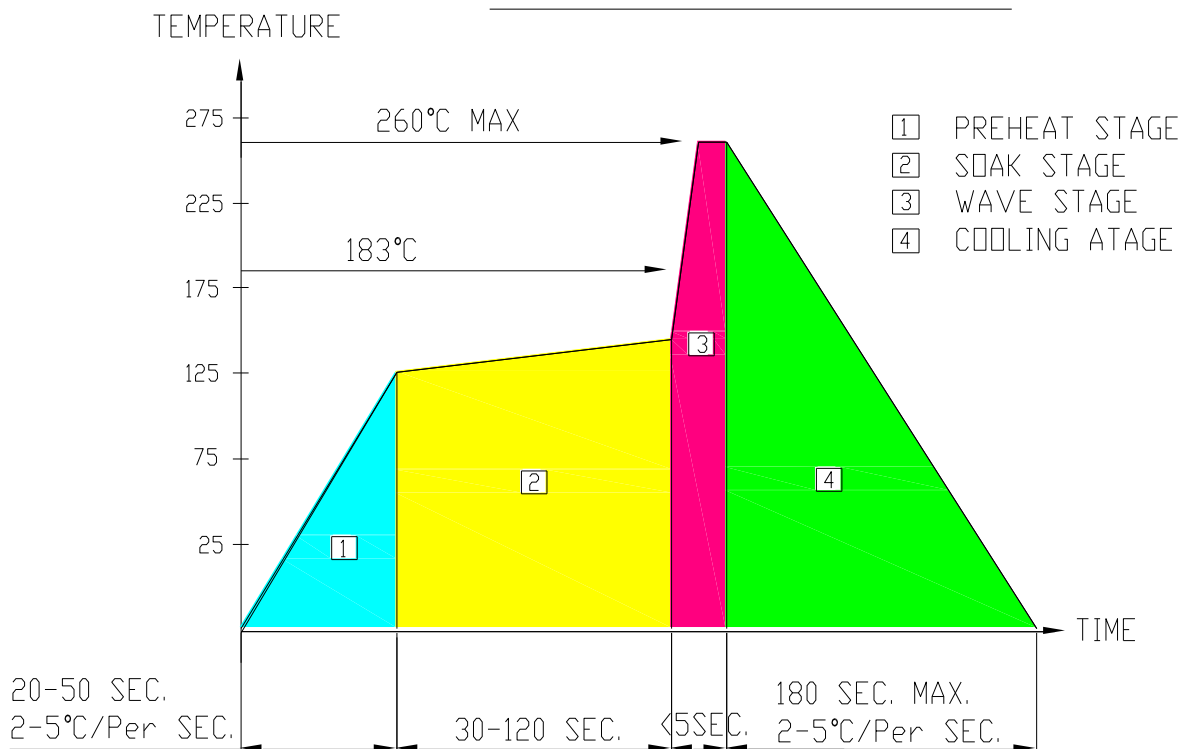


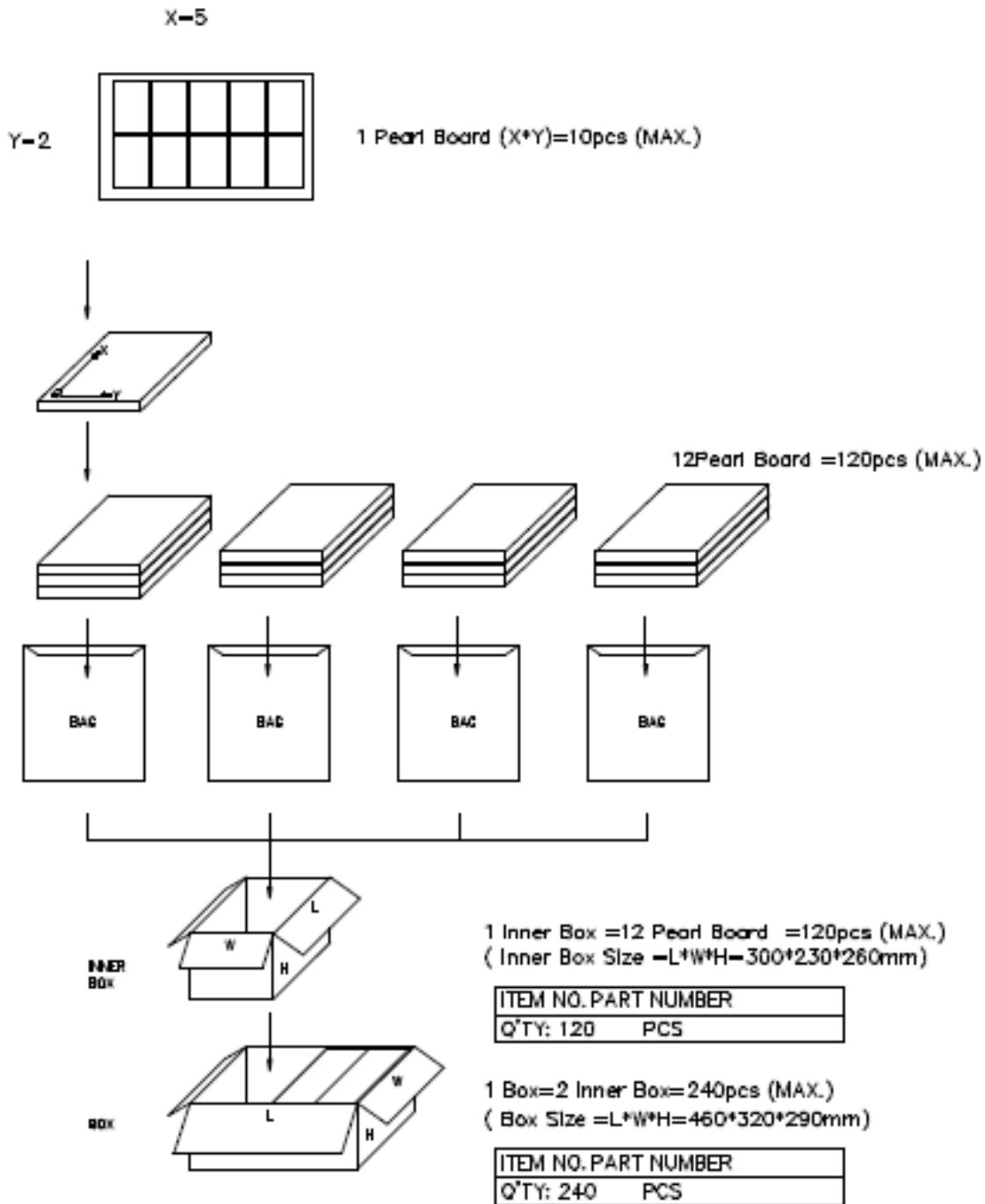
Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)

**Solder Profile & Footprint:**

WAVE SOLDER PROFILE



**Packing & Labeling:**







QBAS230XXZ\_series

2.30" Single Digit  
Alphanumeric Display

### 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

Product: QBAS230XXZ_series	Date: February 06, 2012	Page 9 of 10
	Version# 1.0	

**Revision History:**

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