

**Feature:**

- 0.54" Dual digit fourteen-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 0.54" Dual digit fourteen-segment displays are made with white segment and gray surface. The viewing distance is up to seven meters.

**Application:**

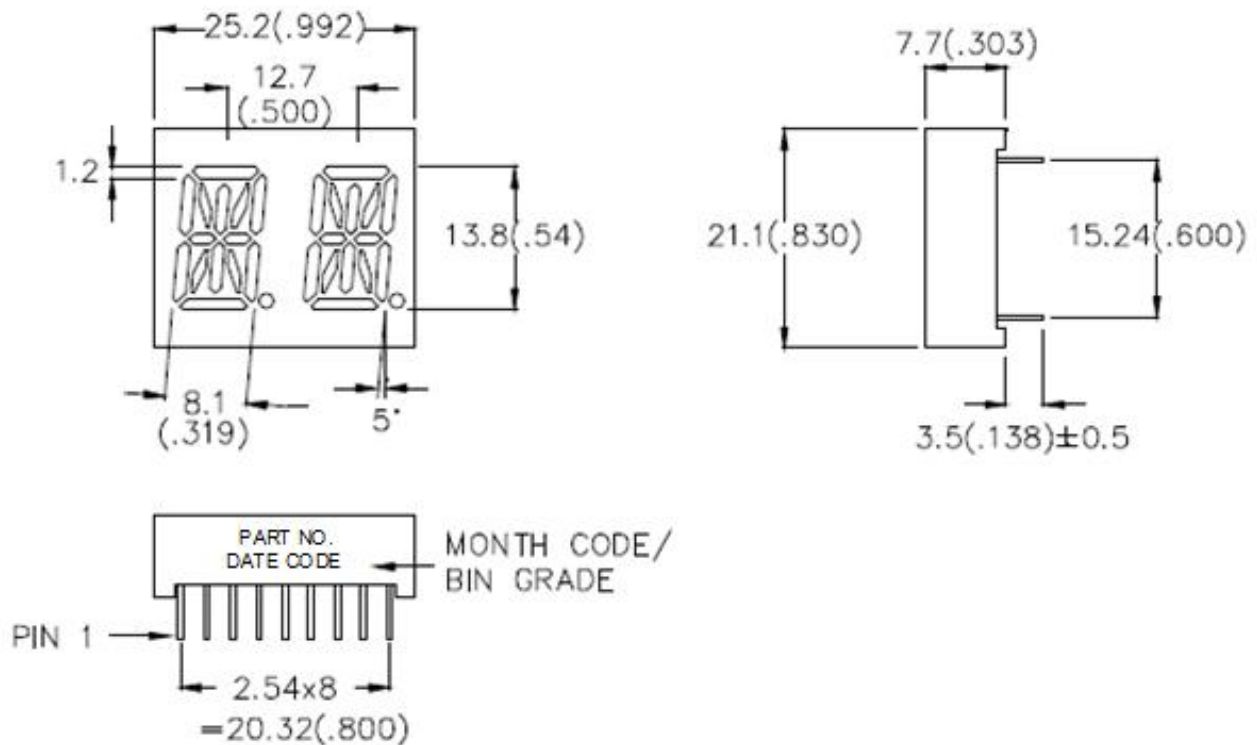
- Instrument panels
- Indoor/Outdoor display board
- Audio equipment

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.25mm

**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.	Max.	Typ.	Typ.	Typ.
QBAD54R1	QABD54R0	AllnGaP	Red	20	2.1	2.5	630	640	22
QBAD54Y1	QABD54Y0	AllnGaP	Yellow	20	2.1	2.5	590	592	30
QBAD54AG1	QABD54AG0	AllnGaP	Yellow Green	20	2.1	2.5	570	572	12

\* Per segment

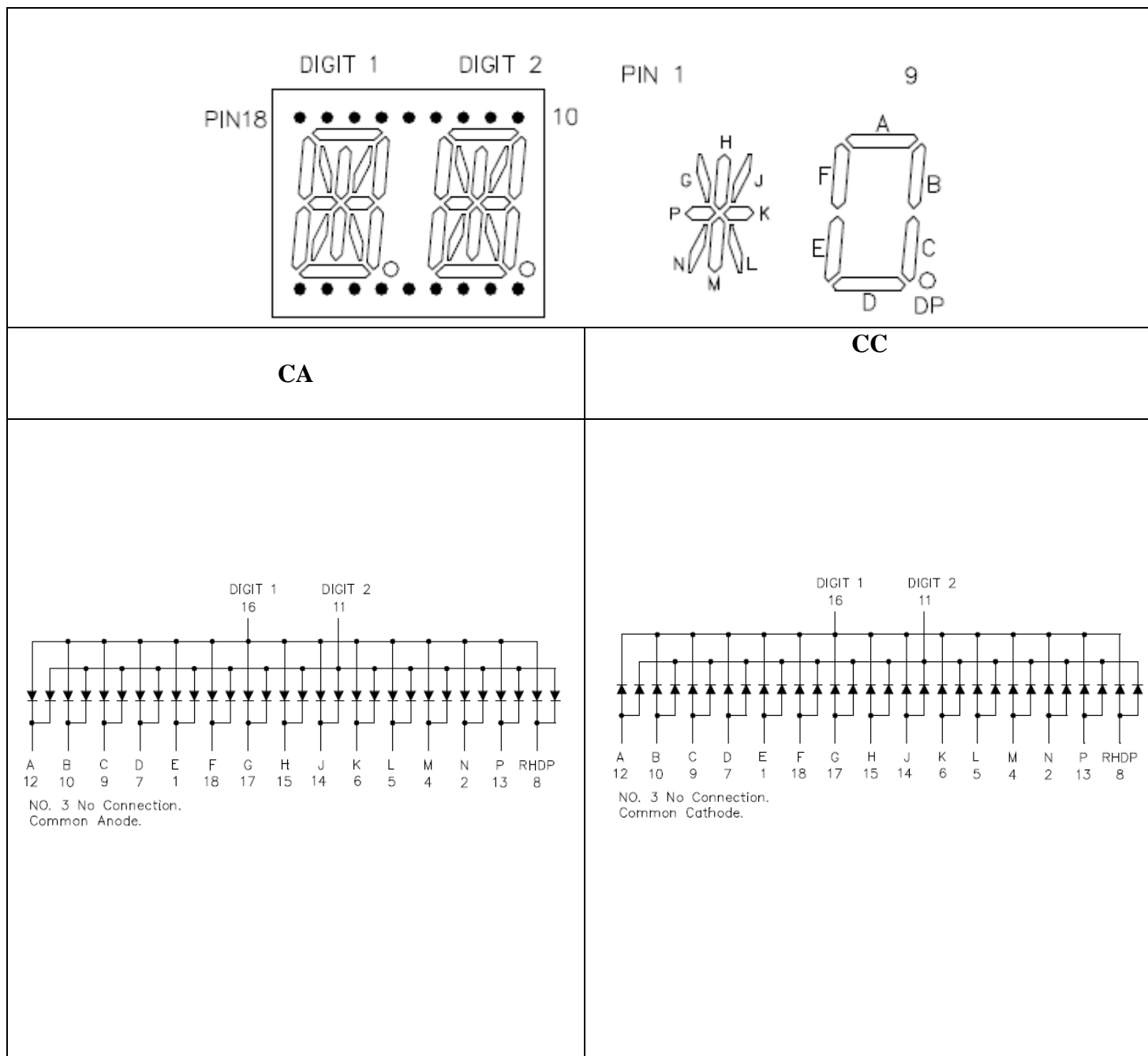
**Absolute Maximum Rating**

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	0.33	25	90	5	-25 to +85	-25 to +85	260

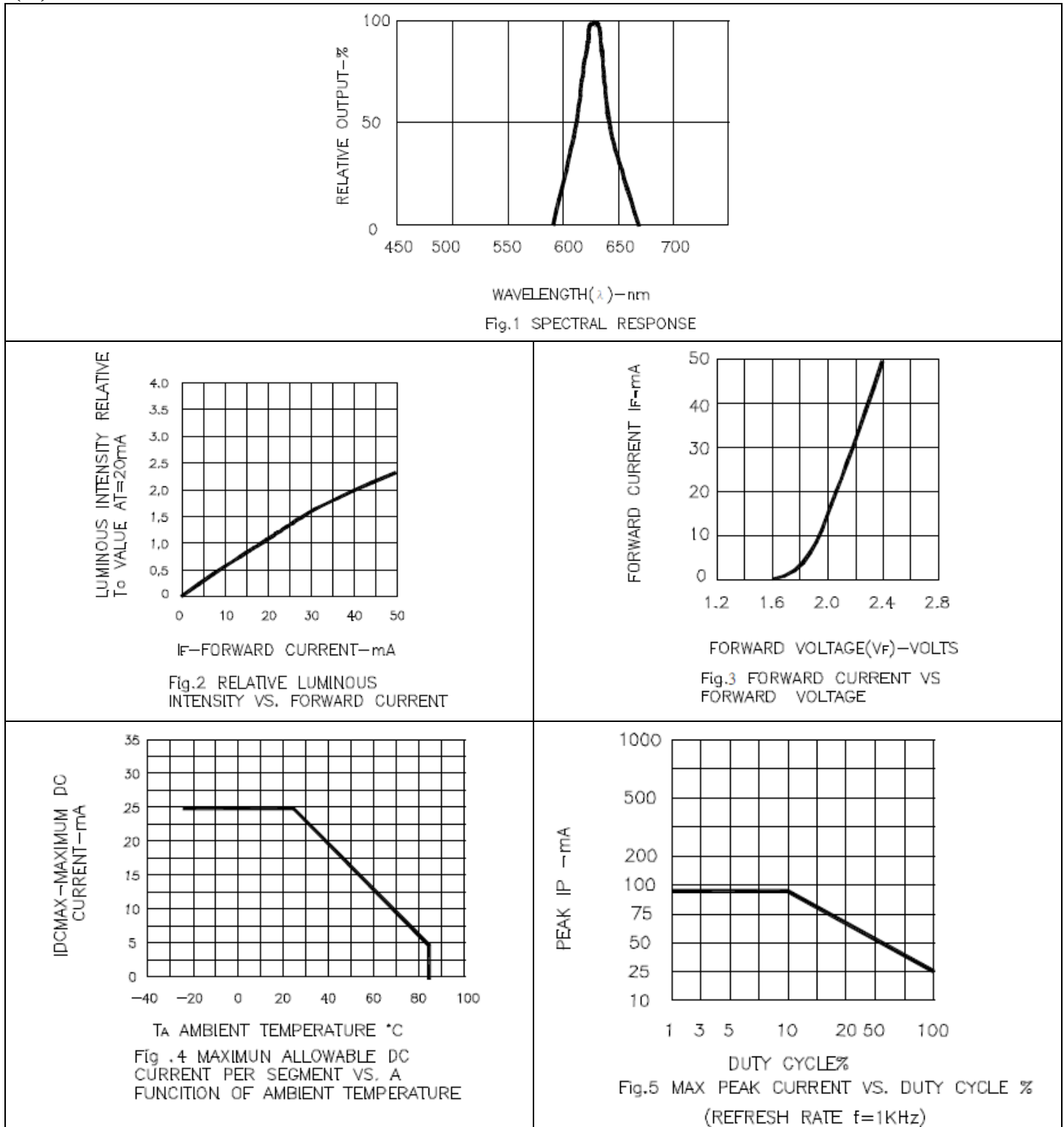
\*Duty 1/10 @ 1KHz

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

**Pin Configuration**



**Characteristic Curves:**  
**(R)**



(Y)

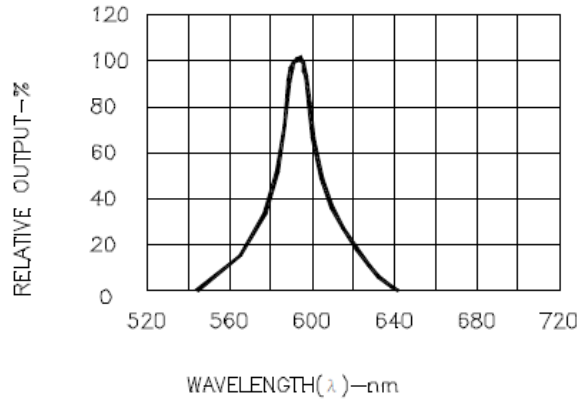


Fig.1 SPECTRAL RESPONSE

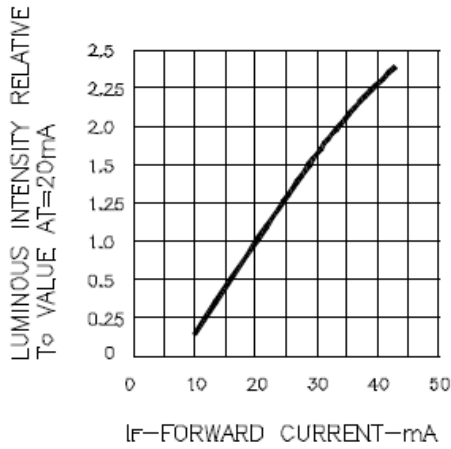


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

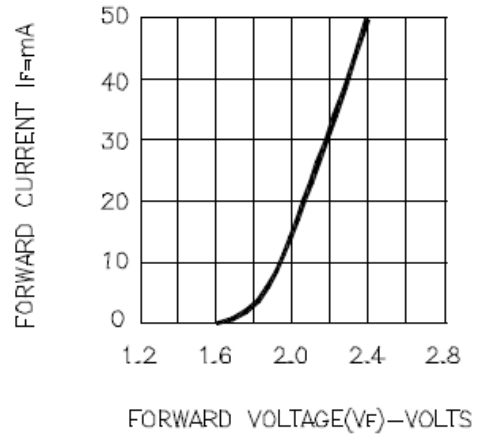


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

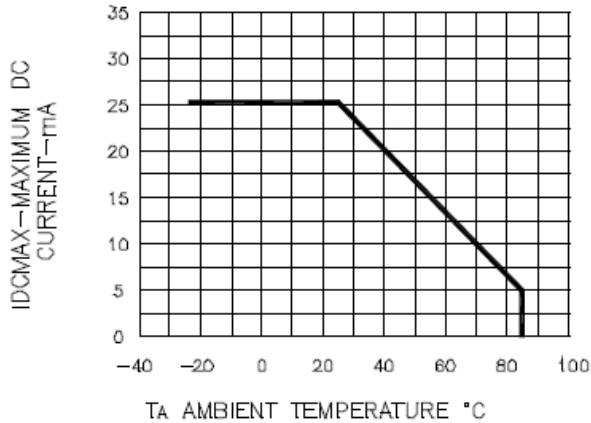


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



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

(AG)

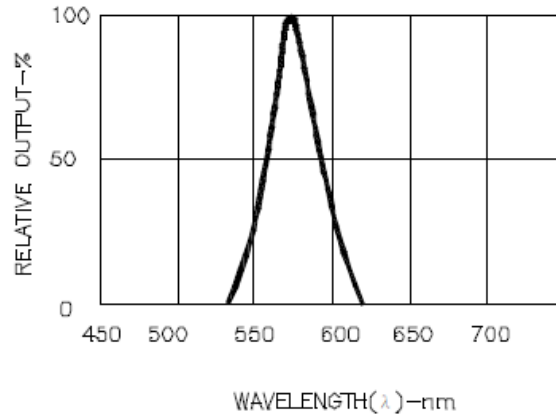


Fig.1 SPECTRAL RESPONSE

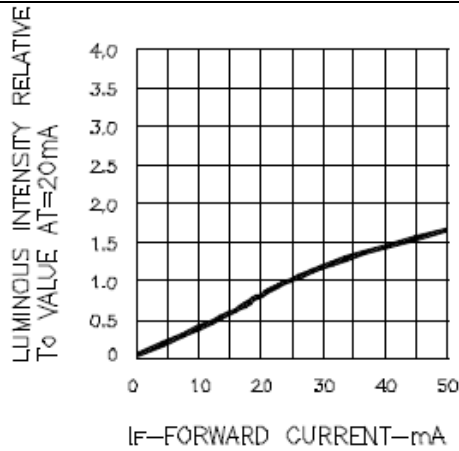


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

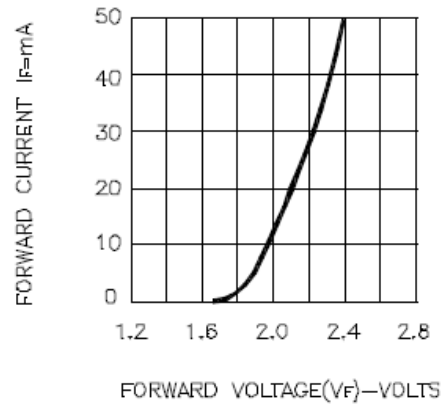


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

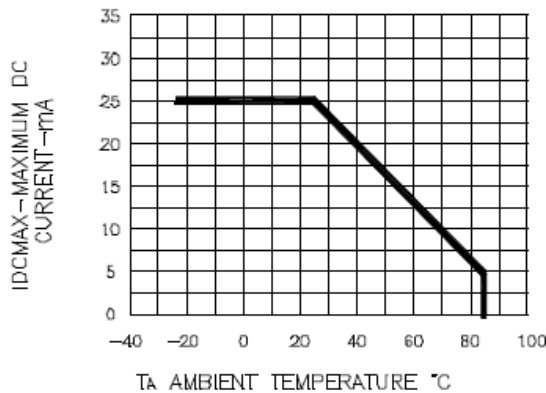


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

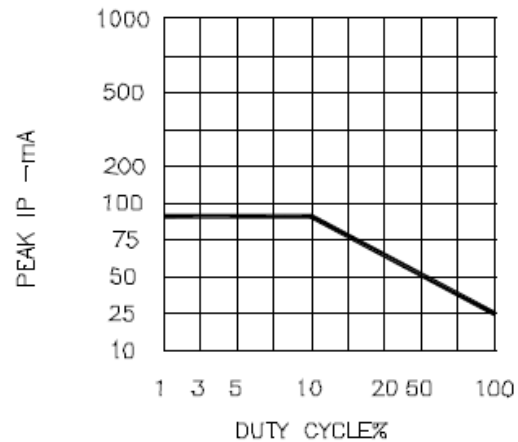
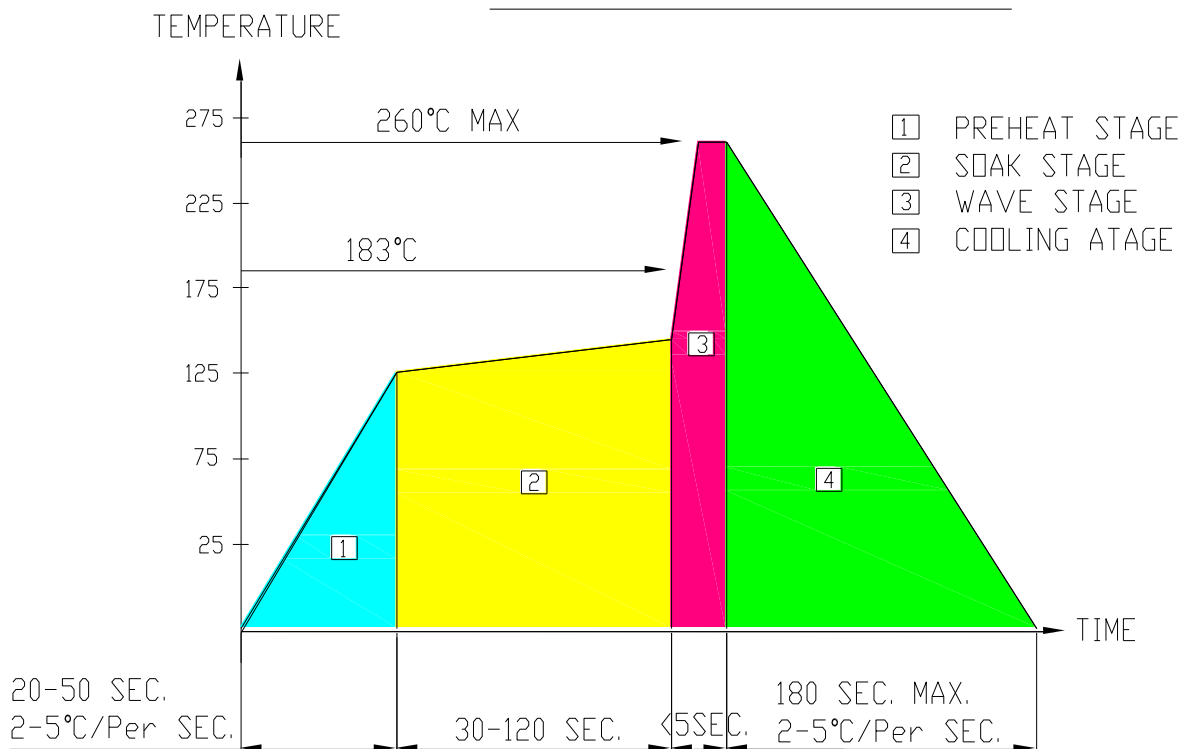


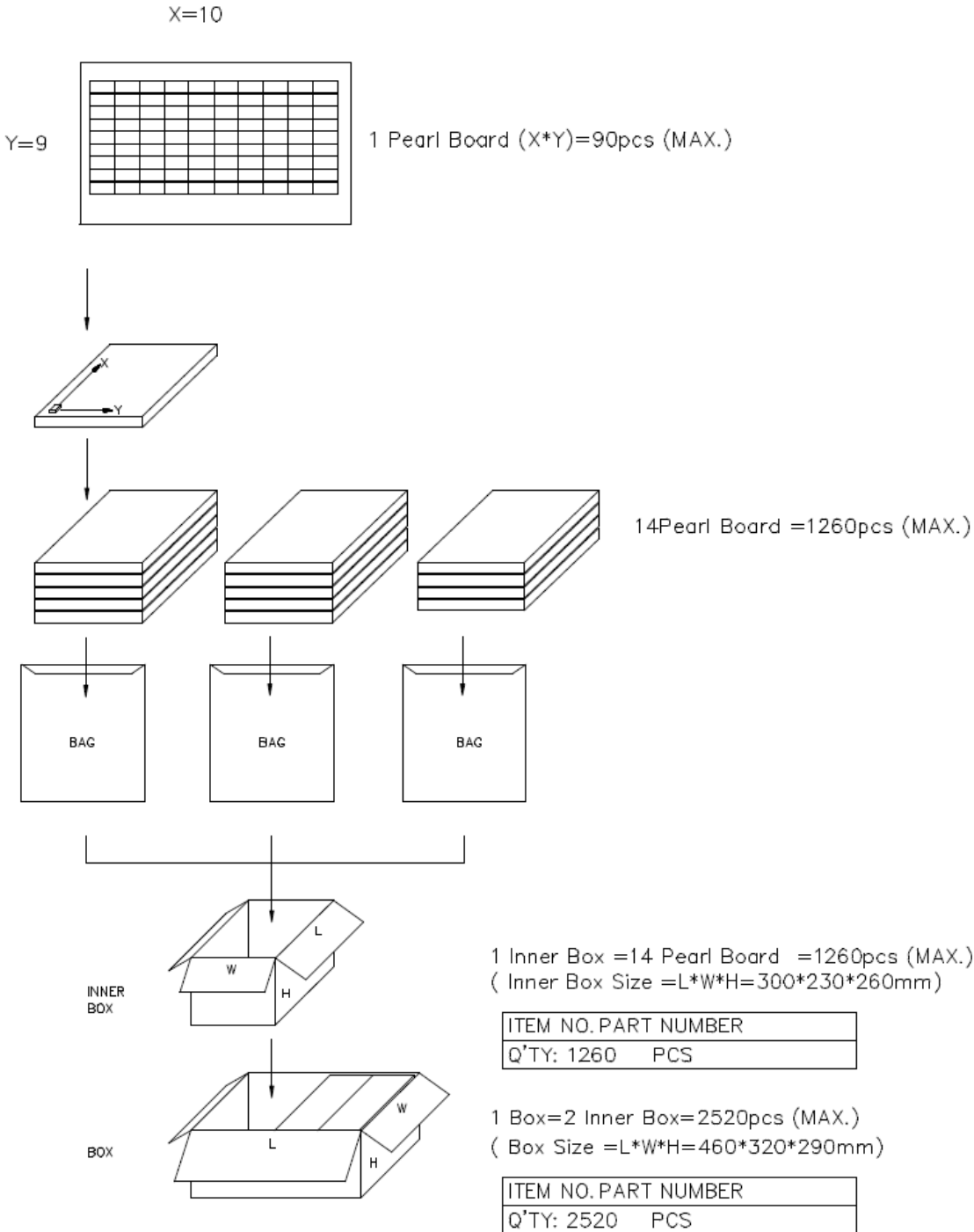
Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)

**Solder Profile & Footprint:**

WAVE SOLDER PROFILE



**Packing & Labeling:**





**Ordering Information:**

Product		Orderable Part #		Spec Range	Quantity Per Board
CC	CA	CC	CA		
QBAD54R1	QBAD54R0	QBAD54R1	QBAD54R0	lv= 22 mcd typ. @ IF=20mA	90 pcs
QBAD54Y1	QBAD54Y0	QBAD54Y1	QBAD54Y0	lv= 30 mcd typ. @ IF=20mA	90 pcs
QBAD54AG1	QBAD54AG0	QBAD54AG1	QBAD54AG0	lv= 12 mcd typ. @ IF=20mA	90 pcs

**Revision History:**

Description:	Revision #	Revision Date
New Release of QBAD54XXZ_series	V1.0	02/01/2012