

#### PARA LIGHT ELECTRONICS CO., LTD. 4F, No.1, Lane 93, Chien Yi Road, Chung Ho City, Taipei, Taiwan.

4F, No.1, Lane 93, Chien Yi Road, Chung Ho City, Taipei, Taiwan.Tel: 886-2-2225-3733Fax: 886-2-2225-4800E-mail: para@para.com.twhttp://www.para.com.tw





REV:A/0

# PACKAGE DIMENSIONS



DRAWING NO. : DS-17-11-0396G

DATE : 2011-12-19

Page: 2



# 20.00mm x 31.00mm SQUARE LIGHT BAR

### B-2233G

REV:A/0

#### FEATURES

- Û 20.00 x 31.00mm SQUARE LIGHT BAR
- **Û** LOW POWER REQUIREMENT
- Û CAN BE USED WITH PANEL AND LEGEND MOUNT
- **Û** SUITABLE FOR MULTIPLEX OPERATION
- Û EASY MOUNTING ON P.C.B
- **Û** Pb FREE PRODUCTS
- **Û ROHS COMPLIAMCE**
- **Û** GREEN SEGMENTS

#### Raw Material : GaP/GaP

#### ABSOLUTE MAXIMUM RATING : ( Ta = 25BC )

SYMBOL	PARAMETER	YELLOW GREEN	UNIT	
PD	Power Dissipation Per Bar	280	mW	
VR	Reverse Voltage Per Bar	10	V	
laf	Continuous Forward Current Per Bar	50	mA	
	Derating Linear From 25BC Per Bar	0.33	mA/BC	
Topr	Operating Temperature Range	-35BC to $85$ BC		
Tstg	Storage Temperature Range	-35EC to 85EC		

#### ELECTRO-OPTICAL CHARACTERISTICS : (Ta = 25BC)

SYMBOL	PARAMETER	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
VF	Forward Voltage, Per Bar	IF = 40mA		4.4	5.6	V
IR	Reverse Current, Per Bar	VR = 10V			100	mA
IР	Peak Emission Wavelength	IF = 20mA		568		nm
١D	Dominant Wavelength	IF = 20mA		570		nm
Δι	Spectral Line Half—Width	IF = 20mA		30		nm
Iv	Luminous Intensity Per Bar	IF = 20mA	12.0	30.0		mcd

DRAWING NO. : DS-17-11-0396G

DATE : 2011-12-19

Page: 3

20.00mm x 31.00mm SQUARE LIGHT BAR ghi B-2233G REV:A/0 FORWARD CURRENT Vs. LUMINOUS INTENSITY Vs. FORWARD VOLTAGE FORWARD CURRENT Luminous Intensity(mcd) 100 150.0 Forward Current(mA) 80 120.0 60 90.0 40 60.0 20 30.0 0 0 3.4 3.8 4.24.6 5.0 5.4 0 20 40 60 80 100 Forward Voltage(V) IF-Forward Current(mA) FORWARD CURRENT LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE DERATING CURVE Relative Luminous Intensity 2 100 Forward Current IF(mA) 80 1 0.5 60 0.2 40 20 0.1 0 -30  $-10 \ 0 \ 10$ 30 50 70 20 40 60 80 100 Ambient Temperature TA(°C) Ambient Temperature TA(°C)

DRAWING NO. : DS-17-11-0396G

DATE : 2011-12-19

Page: 4



# 20.00mm x 31.00mm SQUARE LIGHT BAR

## B-2233G

#### REV:A/0

#### 

METHOD	SOLDERING CONDITIONS	REMARK
DIP SOLDERING	Bath temperature: 260 max Immersion time: with 5 sec	<ul> <li>Solder no closer than 2mm from the base of the package</li> <li>Using soldering flux," RESIN FLUX" is recommended.</li> </ul>
SOLDERING IRON	Soldering iron: 30W or smaller Temperature at tip of iron: 260°C or lower Soldering time: within 5 sec.	<ul> <li>During soldering, take care not to press the tip of iron against the PIN.</li> <li>(To prevent heat from being transferred directly to the PIN.)</li> </ul>

1) When soldering the PIN of Display in a jig that the package is fixed with a panel (See flg.1), be careful not to stress the PIN with iron tip. When soldering Display in a condition that the package is fixed with a panel, be careful not to cling and stress the surface of Display on the panel to avoid damaging the Display.



Fig.1

Regarding solution in the tinning oven for product-tinning, compound sub-solution made of tin & copper and silver is proposed with the temperature of Celsius 260. The proportion of the alloyed solution is tin 95.5: copper 3.5: silver 0.5 by percentage. The time of tinning is constantly 3 seconds.

DRAWING NO. : DS-17-11-0396G

DATE: 2011-12-19