

TECHNICAL DATA SHEET

DATE OF ISSUE : May. 20, 2016

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1. TYPE : RCN-SD2A02R4NL

2. MAXIMUM RATING

Ta=25°C

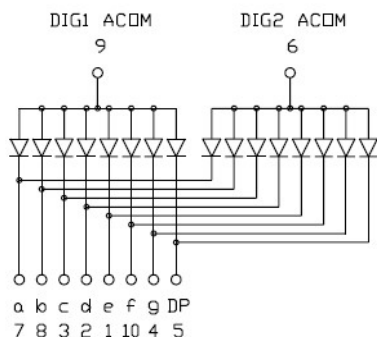
Item	Symbol	Rating	Unit
Forward direct current	I_F	20	mA/seg
Peak forward current	I_{FP}	50	mA/seg
Reverse voltage	V_R	5	V
Storage temperature	Tstg	-40~+80	°C
Operating temperature	Topr	-30~+70	°C

3. ELECTRO-OPTICAL CHARACTERISTICS

Ta=25°C

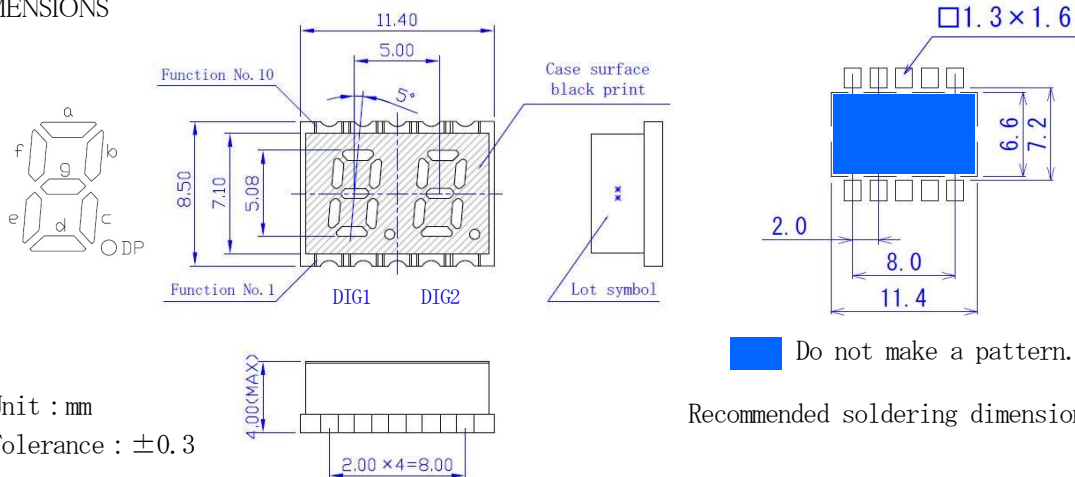
Item	Symbol	Condition	MIN	TYP	MAX	Unit
Forward voltage	V_F	$I_F=10mA$	-	1.90	2.30	V
Reverse current	I_R	$V_R=4V$	-	-	10	μA
Luminous intensity/seg	I_V	$I_F=10mA$	2.00	4.00	-	mcd
Peak wavelength	λ_P	$I_F=10mA$	-	632	-	nm
Spectra line half width	$\Delta \lambda$	$I_F=10mA$	-	15	-	nm

4. CIRCUIT DIAGRAM • TERMINAL CONNECTION LIST



No.	FUNKTION	No.	FUNKTION
1	Cathode e	10	Cathode f
2	Cathode d	9	DIG1 A COM
3	Cathode c	8	Cathode b
4	Cathode g	7	Cathode a
5	Cathode D.P	6	DIG2 A COM

5. DIMENSIONS



Unit : mm
Tolerance : ± 0.3

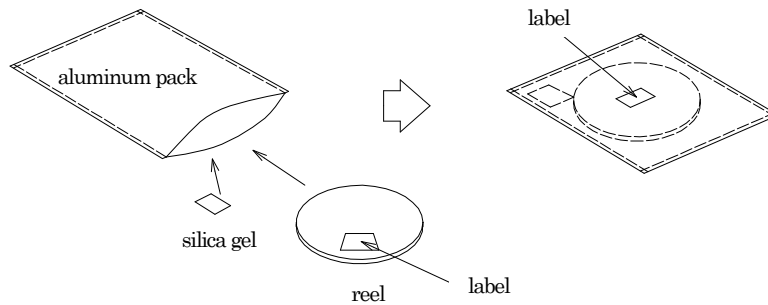
■ Do not make a pattern.

Recommended soldering dimension

**OKAYA ELECTRIC
INDUSTRIES CO., LTD.**

6. DAMPPROOF PACKING

It is packed with aluminum pack to avoid moisture absorption during transportation and storage.



Storage condition

Please storage and control following condition after unpacked.

- It should be storage under the condition of humidity and temperature.
- Please storage in the dry box.
- Please storage and airtight with sealer, desiccant etc.
- Storage should avoid the place where it is possibly water leakage or direct rays hit.
- Please storage at the place where temperature is rarely change, since rapid change of temperature leads condensation and it may cause oxidation and corrosion.
- There should be no loading against the product during the storage.
- Storage should avoid the place where poisonous gad (especially corrosion gas) break out or dusty.

7. PRECAUTIONS OF USE

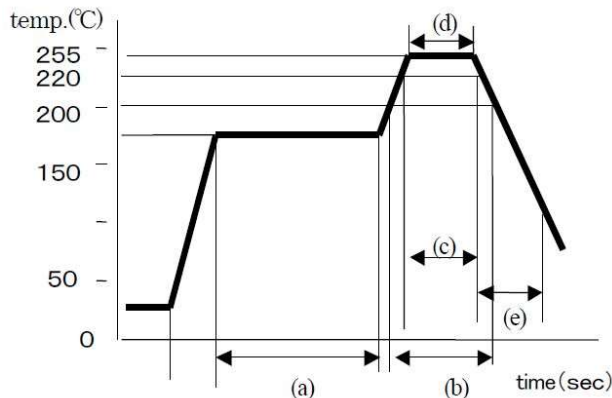
(1) Hand Soldering : 350°C for 3sec

(2) Reflow soldering

① Package temperature should be under the following temperature profile condition.

Even if it is under the temp. profile condition, if the pressure is added against the package by board corvature etc. it may cause inside package defective. Therefore, please use after fully confirming a production condition.

② Re-flow temperature profile

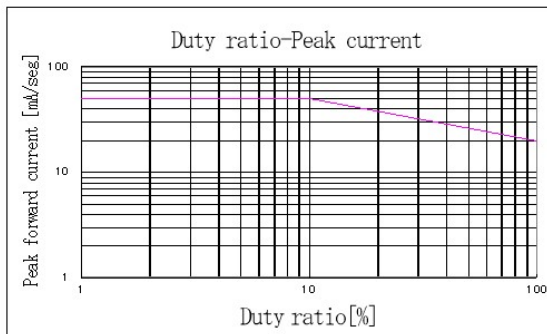
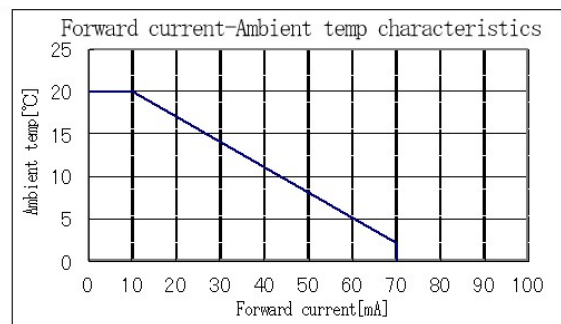
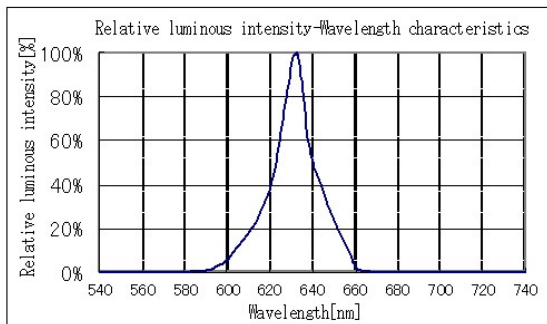
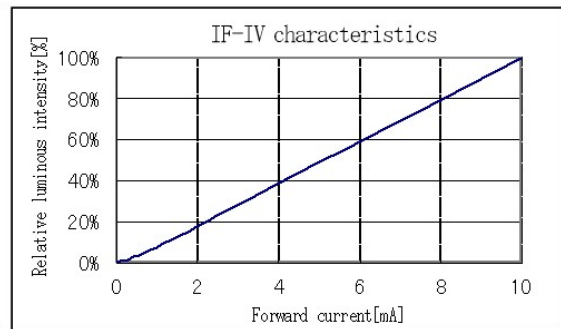
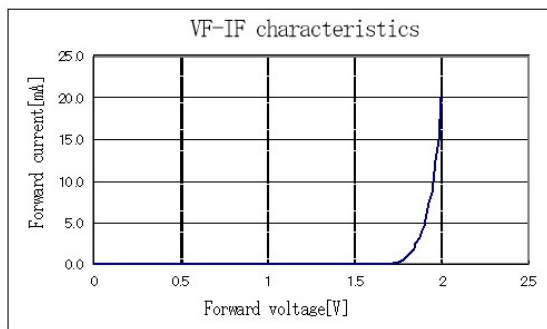


(a)	Pre-heat	150°C~180°C 60sec~120sec
(b)	Heat	200°C:40sec~60sec
(c)		220°C:30sec~40sec
(d)	Peak temp.	255°C:5sec MAX
(e)	cooling	Compulsory cooling

NOTE) Re-flow soldering should be done only one time, and please use attentively to the following points.

- (3) As this product is not airtight type, please avoid dip washing (ultrasonic cleaning) in cleaning fluid.
- (4) Use soft cloth with diluted alcohol when wiping off the spot attached to the LED surface and flux removal.
Please wipe lightly and with fully attention to avoid alcohol soaking between board and case.
- (5) Strong press should not be added against the segment of LED display unit or DP surface resin parts.
It may become the cause of reliability decreasing.
- (6) Mechanical stress should not be added against the LED display unit at the time of soldering.
- (7) Epoxy resin is molded to surface of the LED display unit. If tiptoe, hard or sharp object got caught on the corner of the LED display unit, it may cause scratch.
- (8) As this product is hollow type, it is fitted by caulk between case and board of the display.
There should be no loading more than 1Kg or catching against the implemented display unit, it may leads out of joint of the case. Even if the shock is less than 1Kg, the shock in the high temperature at the time of soldering etc. may leads to disconnection of the chip and bonding part.

8. TYPICAL ELECTRICAL AND OPTICAL CHARACTERISTICS



Ta=25°C
 pulse width: less than 10ms
 duty ratio: less than 1/10

※ Above data are normal values, and it is not a guarantee value.