

# EUROLED

## SMD 7 Segment Display

7 mm Digit Height  
ED 07 Series

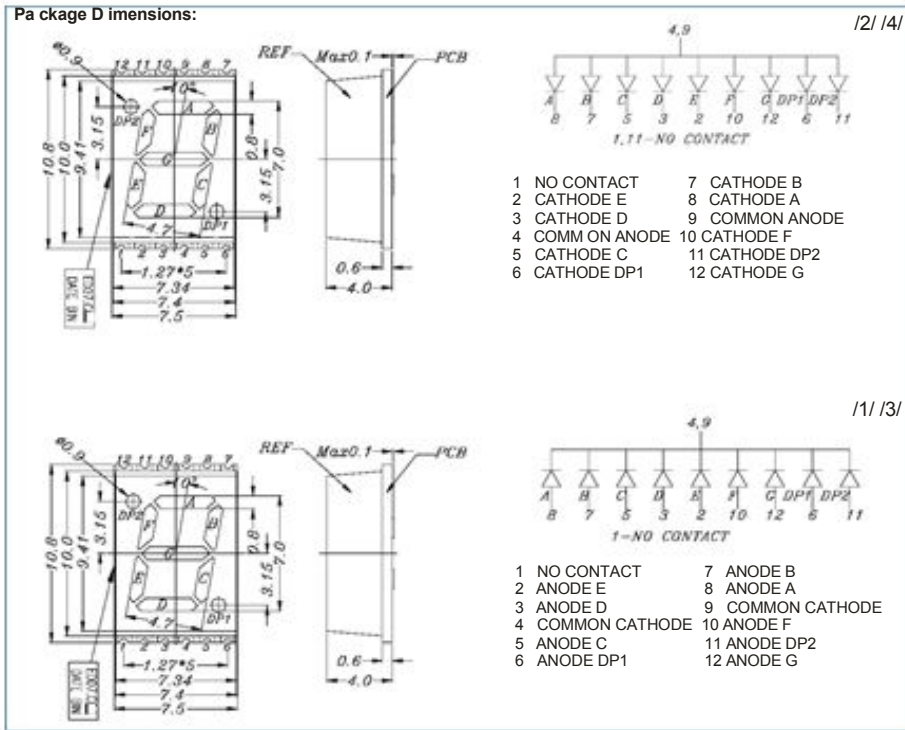


- /1/ ED07.CC.R
- /2/ ED07.CA.R
- /3/ ED07.CC.YG
- /4/ ED07.CA.YG

- Common Cathode Red
- Common Anode Red
- Common Cathode Yellow-Green
- Common Anode Yellow-Green

### Features and Benefits

- ▶ Brilliant light output
- ▶ Only 4 mm total height
- ▶ Withstands high solder treatment
- ▶ For all miniature applications
- ▶ On 24 mm blister tape



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Rating	Units
Forward Current <sup>*3 *4</sup>	$I_F$	25	mA
Pulse Forward Current <sup>*1 *3</sup>	$I_{FP}$	160	mA
Operating Temperature	$T_{opr}$	-40 ... +105	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 ... +105	$^\circ\text{C}$
Soldering Temperature <sup>*2</sup>	$T_{sol}$	260	$^\circ\text{C}$
Power Dissipation <sup>*3</sup>	$P_d$	60	mW
Reverse Voltage	$V_R$	5	V

Notes: \*1:  $I_{FP}$  Conditions - Pulse Width < 10 msec and DC < 1/10

\*2: Soldering Time < 5 s

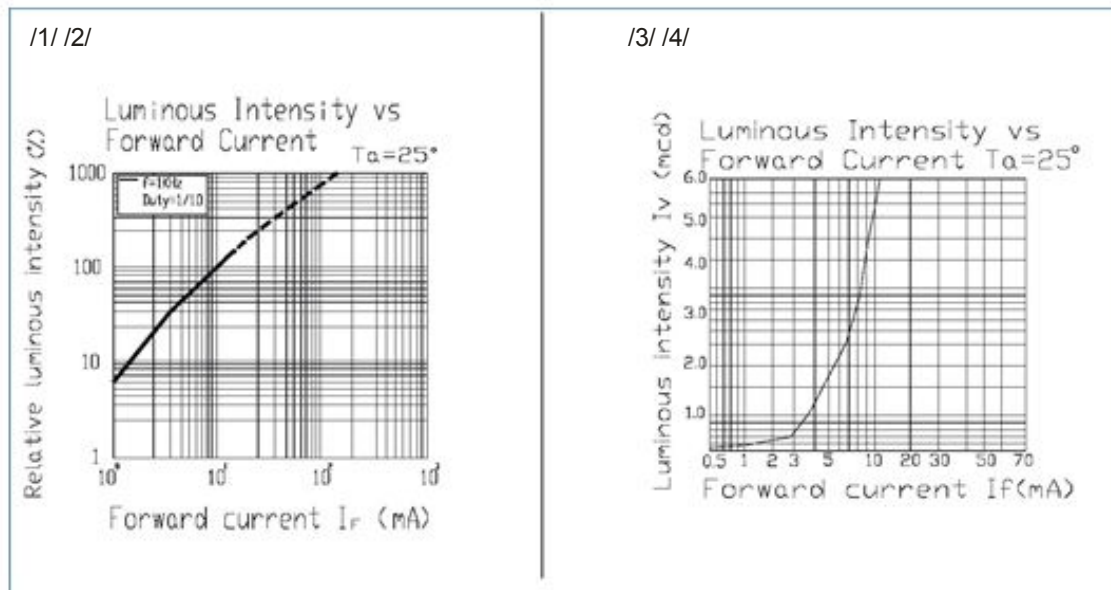
\*3: Per Segment

\*4: Minimal Forward Current 5 mA

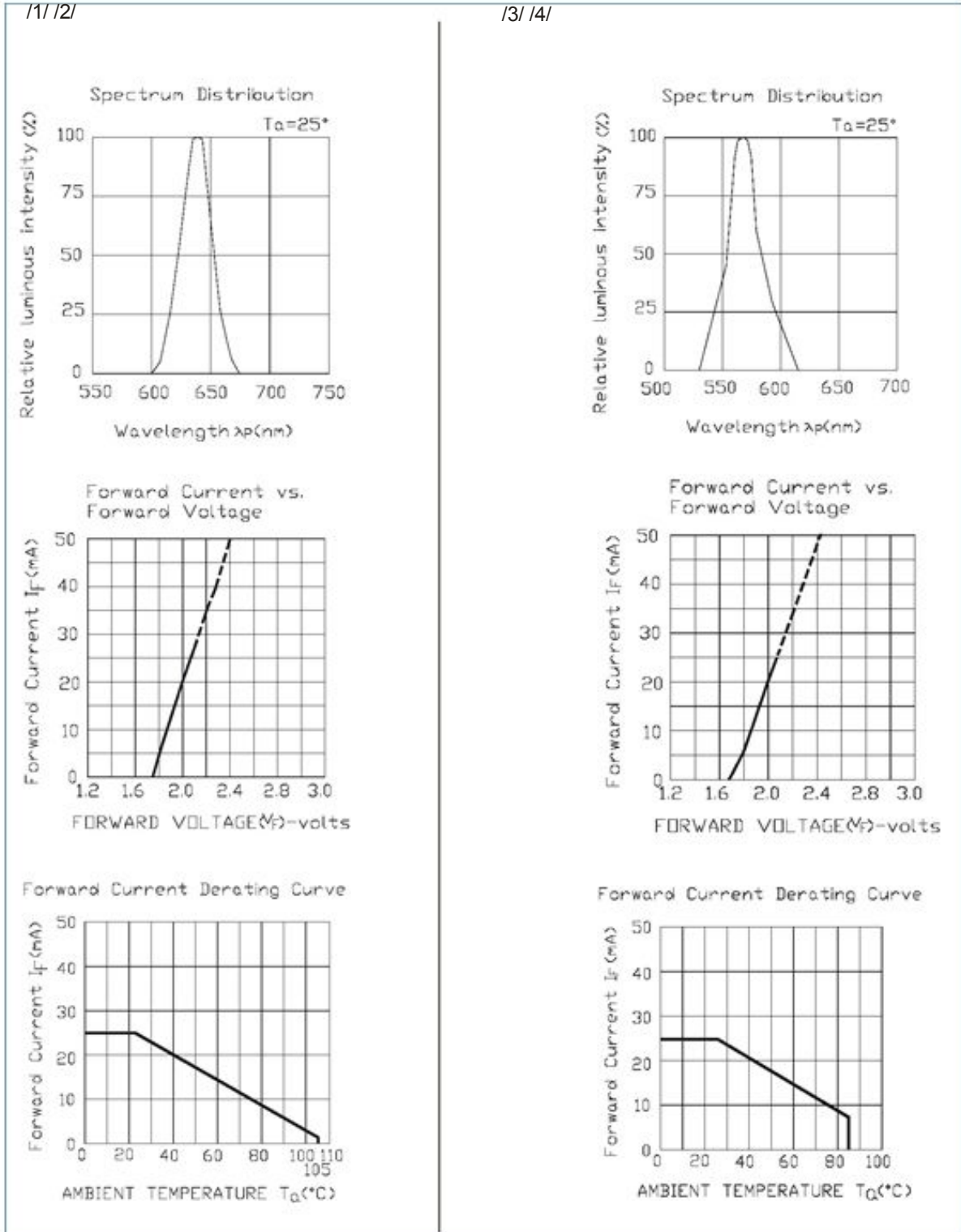
### Electro - Optical Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	Type	
Forward Voltage	$V_F$	$I_F = 20\text{ mA}$	-	2.00	2.40	V	/1/ /2/ /3/ /4/	
Reverse Current	$I_R$	$V_R = 5\text{ V}$	-	-	10	$\mu\text{A}$	/1/ /2/ /3/ /4/	
Luminous Intensity	per segment	$I_v$	$I_F = 10\text{ mA}$	4.00	7.50	-	mcd	/1/ /2/
		$I_v$	$I_F = 10\text{ mA}$	1.40	2.30	-	mcd	/3/ /4/
	per dec. point	$I_v$	$I_F = 10\text{ mA}$	2.00	3.50	-	mcd	/1/ /2/
		$I_v$	$I_F = 10\text{ mA}$	0.45	0.80	-	mcd	/3/ /4/
Peak Wavelength	$\lambda_p$	$I_F = 20\text{ mA}$		632		nm	/1/ /2/	
					575		nm	/3/ /4/
Dominant Wavelength	$\lambda_D$	$I_F = 20\text{ mA}$		624		nm	/1/ /2/	
					573		nm	/3/ /4/
Spectral Half Bandwidth	$\lambda$	$I_F = 20\text{ mA}$		20		nm	/1/ /2/ /3/ /4/	

Figure 1

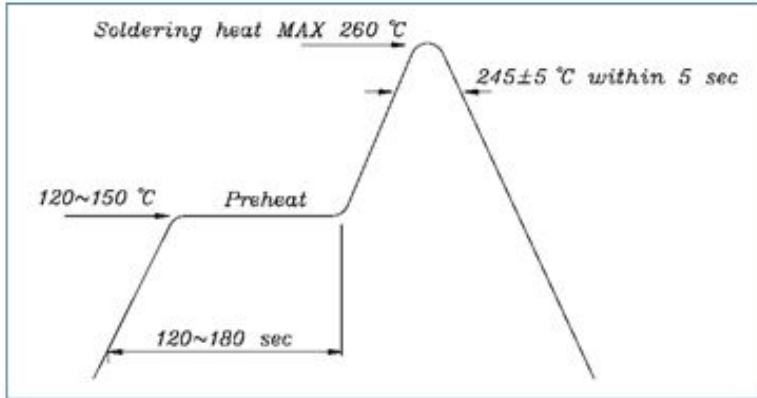


**Figure 2**  
Typical Electro-Optical Characteristics Curves:



**Figure 3**

Soldering Heat Reliability (DIP):



**Soldering Iron:**

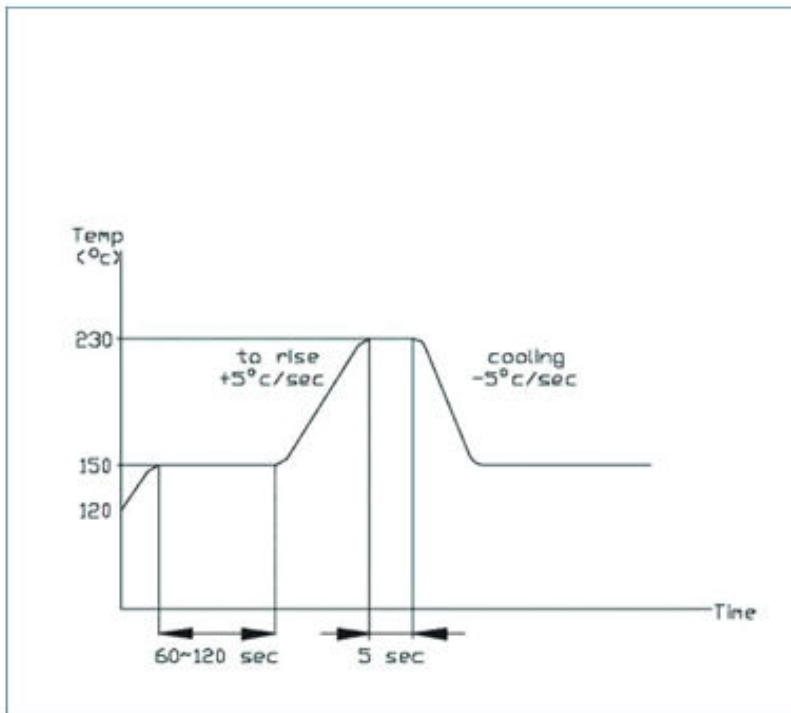
Basic spec is < 5 sec when 260° C. If temperature is higher, time should be shorter (+10° C -> -1 sec). Power dissipation of iron should be smaller than 15 W, and temperature should be controllable. Surface temperature of the device should be under 230° C.

**Rework:**

1. Customer must finish rework within 5 sec under 260° C.
2. The head of iron must not touch copper foil.

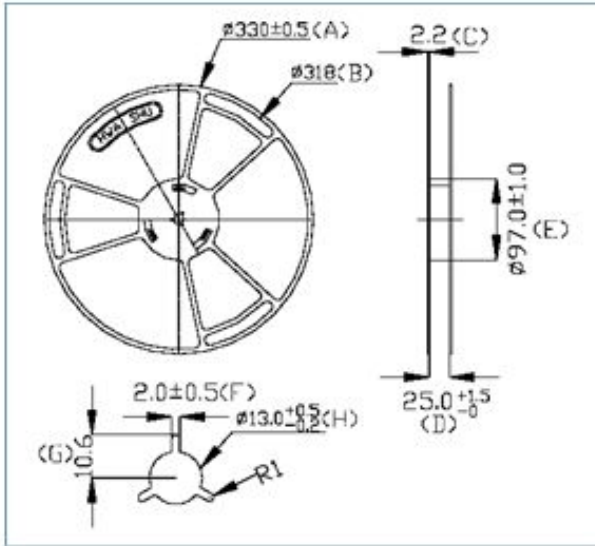
**Figure 4**

Reflow Temp./ Time:



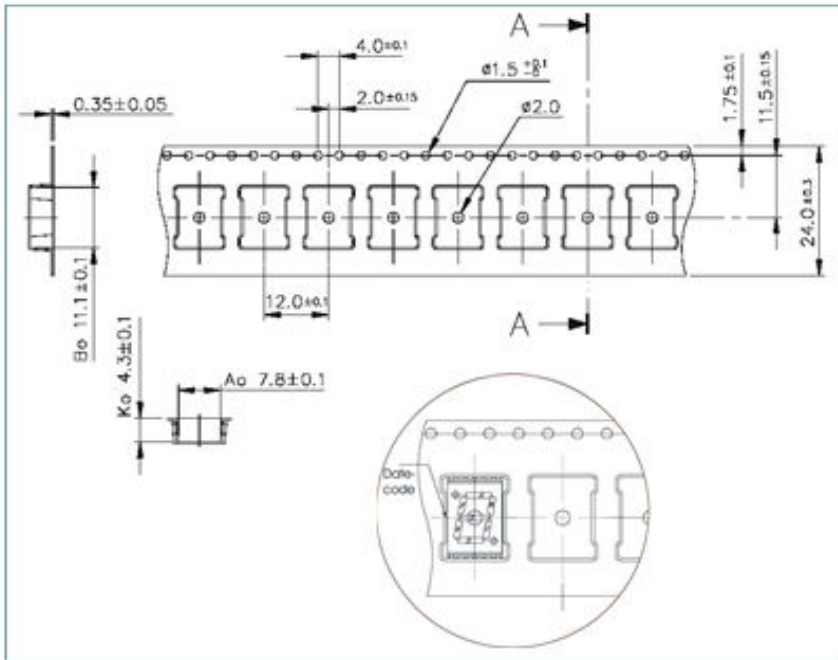
**Figure 5**

Package Dimensions:



**Figure 6**

Taping Dimensions:



Packing Quantity Specification:  
1000 pcs per roll

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