

CUSTOMER : \_\_\_\_\_

NO. : MSD-R0427

EDIT :

DATE : 2019. 01. 14

# SPECIFICATION FOR APPROVAL

PRODUCT : 0.4 INCH 2 DIGIT SMD LED DISPLAY  
PART NO. : MSD-R0427

APPROVAL			REVISION
CHK	CHK	APPD.	
REMARKS			



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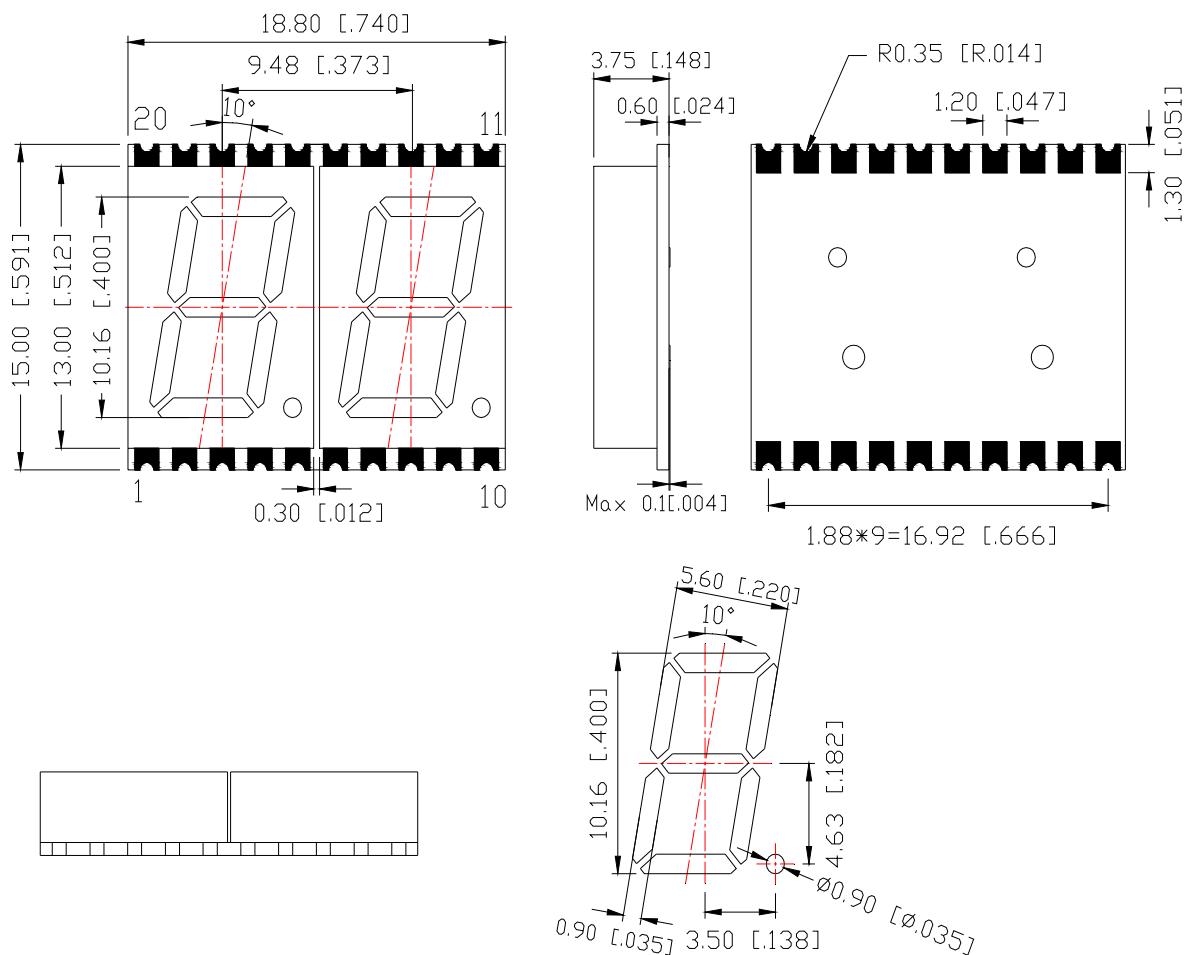
### 1. DESCRIPTION:

- Gray face, White Epoxy
- Common Anode Display
- **Red Color**
- **RoHS Compliant**

### 2. FEATURES:

- High intensity and reliability
- High quality, Low power requirement
- IC compatible , Easy assembly
- **ESD1000V**

### 3. Outer Dimension:

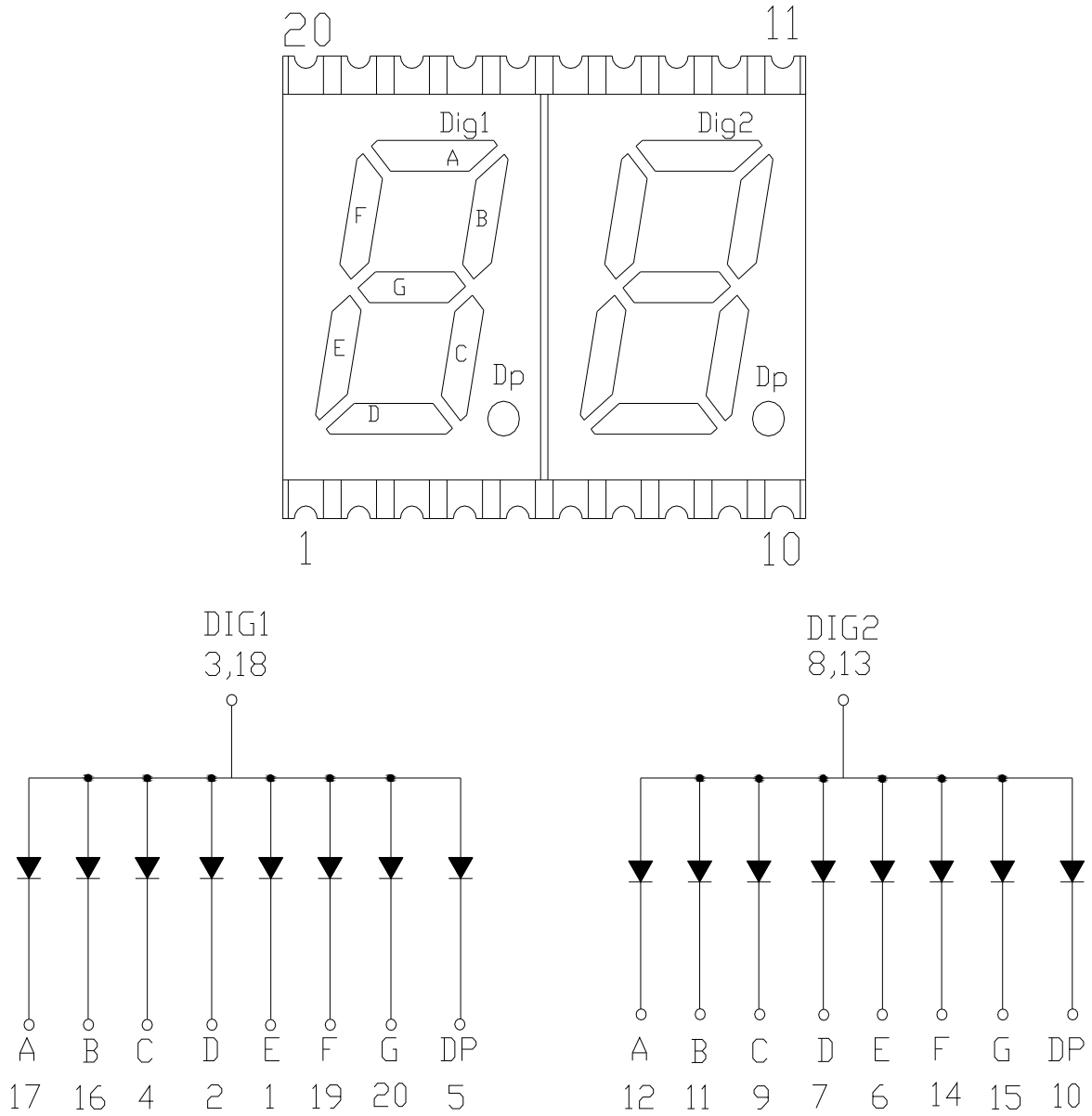


±0.25mm

NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25mm(0.010) unless otherwise noted



**4. INTERNAL CIRCUIT DIAGRAM**





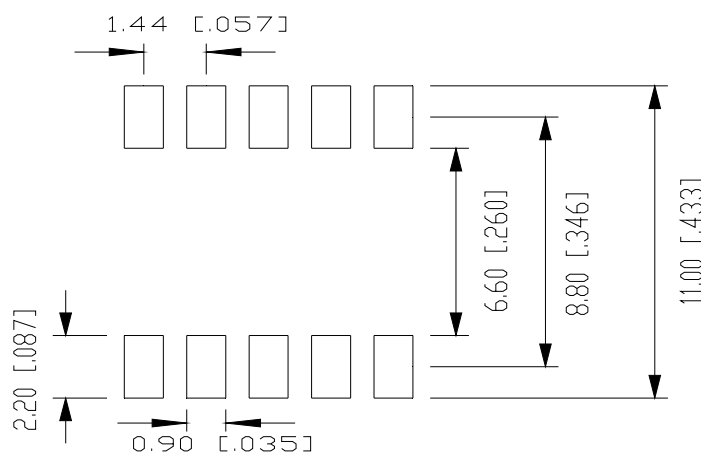
**5、 ABSOLUTE MAXIMUM RATINGS AT Ta=25°C: (Ta: 25' C)**

PARAMETER	Max.	UNIT
Power Dissipation Per Segment	<b>52</b>	<b>mW</b>
Peak Forward Current Per Segment (1/10duty cycle 0.1ms pulse width)	<b>100</b>	<b>mA</b>
Average Forward Current Per Segment	<b>20</b>	<b>mA</b>
Derating Linear From 25°C Per Segment	<b>0.33</b>	<b>mA/°C</b>
Reverse Voltage Per Segment	<b>5</b>	<b>V</b>
Operating Temperature Range	<b>-40°C to + 105°C</b>	
Storage Temperature Range	<b>-40°C to + 105°C</b>	
Lead Soldering Temperature 260°C at 1.6mm From Body for 3 seconds		

**6、 ELECTRICAL/OPTICAL CHARACTERISTICS AT Ta=25°C: (Ta: 25' C)**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	Test condition
Luminous Intensity Per Segment	$I_v$	—	<b>3</b>	—	<b>mcd</b>	<b><math>I_F=10mA</math></b>
Dominant Wavelength	$\lambda_D$	—	<b>640</b>	—	<b>nm</b>	<b><math>I_F=20mA</math></b>
Spectral Line Half-Width	$\Delta\lambda$	—	<b>30</b>	—	<b>nm</b>	<b><math>I_F=20mA</math></b>
Forward Voltage Per Dice	$V_F$	—	<b>2.0</b>	<b>2.6</b>	<b>V</b>	<b><math>I_F=20mA</math></b>
Reverse Current Per Dice	$I_R$	—	—	<b>50</b>	<b><math>\mu A</math></b>	<b><math>V_R=5V</math></b>

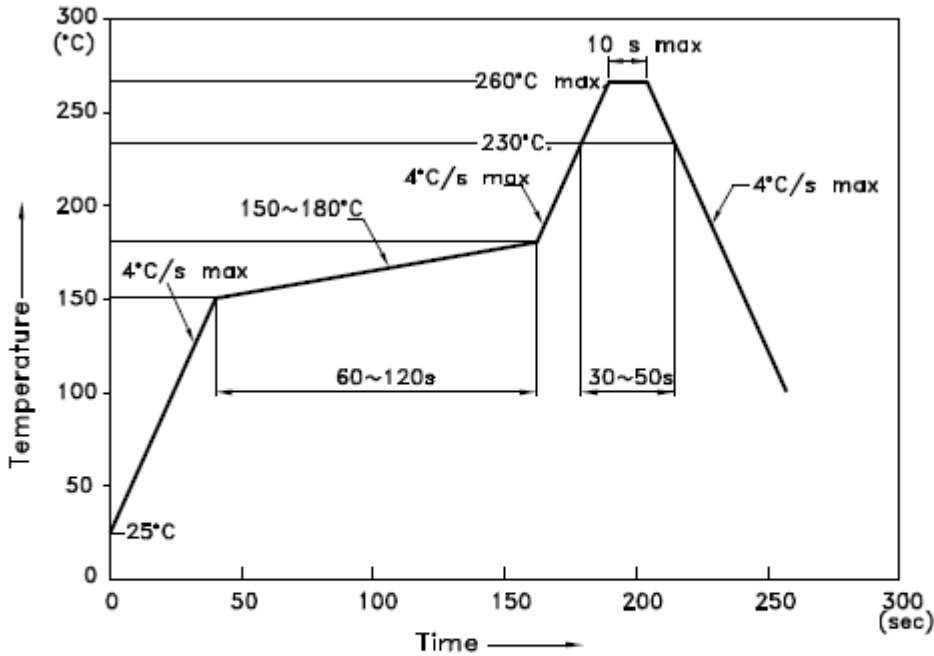
**7、 Recommended Soldering Pattern**



1 reel= 800pcs



### 8、 Recommended SMT condition:



#### NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C}(\pm 5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.