



## 0.80"(20.40mm)Single Digit 7 Segment Display

### Features:

- \*Ultra segment intensity
- \*Wide viewing angle
- \*Range of colors
- \*Gray face White segment
- \*RoHS compliant

### Available option:

- \*Alternative face and segment color
- \*Alternative font
- \*Cropped terminal pins
- \*Available emitting color
- \*Low current version

### Electro/Optical Characteristics If=20mA Ta=25°C

Part Number Common Cathode	Part Number Common Anode	Emitting Color	Peak Wavelength	Forward Voltage Vf/Seg.		Luminous Intensity Iv/Seg.	
				Typ.	Max.	Min.	Typ.
NFD-8012CUHR-21	NFD-8012DUHR-21	AlGaInP/GaAs Ultra Red	640	2.00	2.50	40.00	60.00
NFD-8012CUE-21	NFD-8012DUE-21	AlGaInP/GaAs Ultra Orange	632	2.00	2.50	40.00	60.00
NFD-8012CYO-21	NFD-8012DYO-21	AlGaInP/GaAs Ultra Amber	605	2.00	2.50	40.00	60.00
NFD-8012CUY-21	NFD-8012DUY-21	AlGaInP/GaAs Ultra Yellow	590	2.00	2.50	40.00	60.00
NFD-8012CUG-21	NFD-8012DUG-21	AlGaInP/GaAs Ultra Green	574	2.10	2.50	25.00	40.00
NFD-8012CPG-21	NFD-8012DPG-21	InGaN/SiC Pure Green	525	3.30	3.80	150.00	200.00
NFD-8012CUB-21	NFD-8012DUB-21	InGaN/SiC Ultra Blue	470	3.30	3.80	40.00	100.00
NFD-8012CUW-21	NFD-8012DUW-21	InGaN/SiC Ultra White	X-0.31/Y-0.31	3.30	3.80	200.00	500.00
Units			nm	V		mcd	

### Maximum Ratings Ta=25°C (Derate above 25°C)

Characteristic	Test Condition	Symbol	UHR	UE	YO	UY	UG	PG	UB	UW	Units
Pulse Forward Current Per Seg.	1/10 duty cycle 0.1ms Pulse width	I <sub>FP</sub>	100	100	100	100	100	100	100	100	mA
DC Forward Current Per Seg.		I <sub>F</sub>	30	30	30	30	30	30	30	30	mA
Reverse Current Per Seg.	V <sub>R</sub> =5V	I <sub>R</sub>	10	10	10	10	10	10	10	10	μA
Power Dissipation		P <sub>D</sub>	65*8	65*8	65*8	65*8	75*8	110*8	120*8	120*8	mW
Operating Temperature		T <sub>OPR</sub>	-40 to +80								°C
Storage Temperature		T <sub>TSG</sub>	-40 to +85								°C
Lead soldering temperature	1.60mm from body maximum 3 seconds		260								°C

Checked

Chen N.H.

Approved

Jason Chen

Date

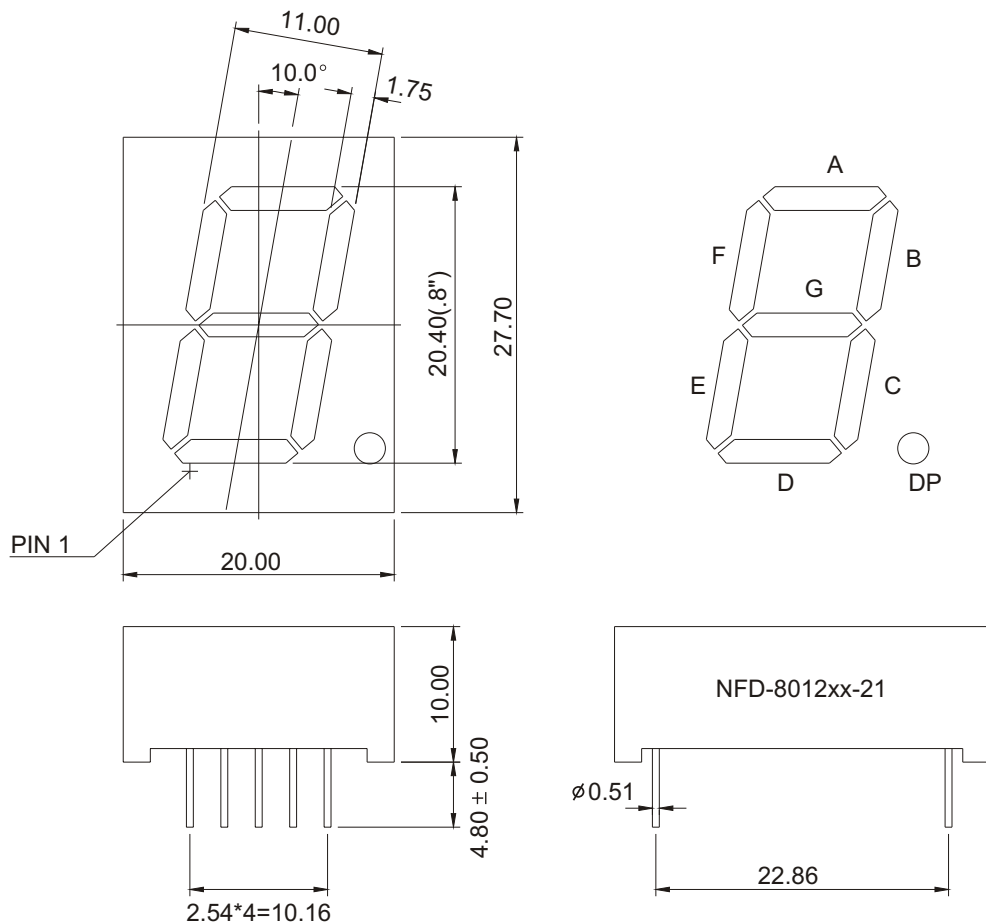
Aug/22/2007

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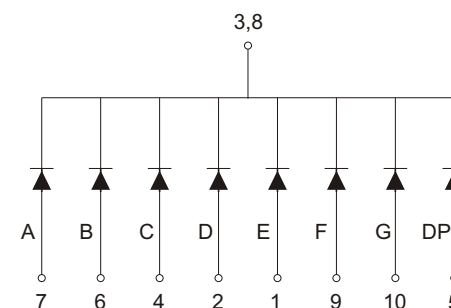
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## PACKAGE DIMENSION

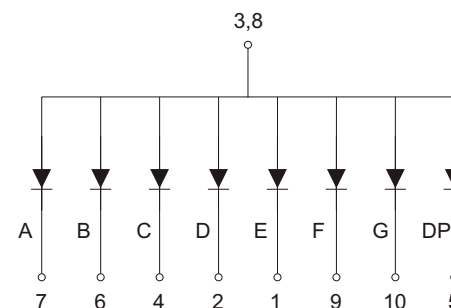


## INTERNAL CIRCUIT DIAGRAM

### Common Cathode NFD-8012Cx



### Common Anode NFD-8012Dx



Tolerance  $\pm 0.25\text{mm}$  unless stated