



2.30"(56.80mm)Dual 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 V _F /Seg.(DP)		Luminous Intensity I _v /seg.(DP)	
				Typ.	Max.	Min.	Typ.
	NFD-23021BUHR-21-N2	AlGaInP/GaAs Ultra Red	640	8.00(4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
	NFD-23021BUE-21-N2	AlGaInP/GaAs Ultra Orange	632	8.00(4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
	NFD-23021BYO-21-N2	AlGaInP/GaAs Ultra Amber	605	8.00(4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
	NFD-23021BUY-21-N2	AlGaInP/GaAs Ultra Yellow	590	8.00(4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
	NFD-23021BUG-21-N2	AlGaInP/GaAs Ultra Green	574	8.40(4.20)	10.00(5.00)	100.00(50.00)	160.00(80.00)
	NFD-23021BPG-21-N2	InGaN/SiC Pure Green	525	13.20 (6.60)	15.20(7.60)	600.00(300.00)	800.00(400.00)
	NFD-23021BUB-21-N2	InGaN/SiC Ultra Blue	470	13.20 (6.60)	15.20(7.60)	160.00(80.00)	400.00(200.00)
	NFD-23021BUW-21-N2	InGaN/SiC Ultra White	X-0.31/Y-0.31	13.20 (6.60)	15.20(7.60)	800.00(400.00)	2000.0(1000.0)
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 _{FP}	100	100	100	100	100	100	100	100	mA
DC Forward Current Per Seg.		I _F	30	30	30	30	30	30	30	30	mA
Reverse Current Per Seg.	V _R =10V	I _R	10	10	10	10	10	10	10	10	μA
Power Dissipation		P _D	65*58	65*58	65*58	65*58	75*58	110*58	120*58	120*58	mW
Operating Temperature		T _{OPR}	-40 to +80								°C
Storage Temperature		T _{TSG}	-40 to +85								°C
Lead soldering temperature	1.60mm from body maximum 3 seconds		260								°C

Checked

Chen N.H.

Approved

Jason Chen

Date

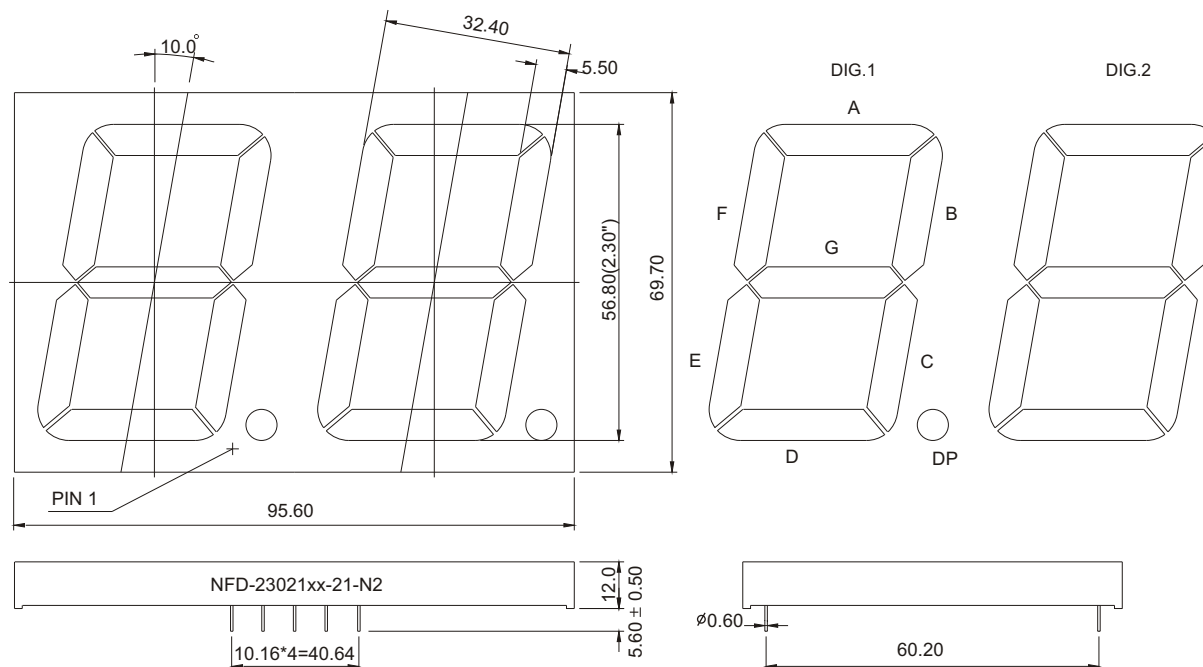
Jul/10/2007

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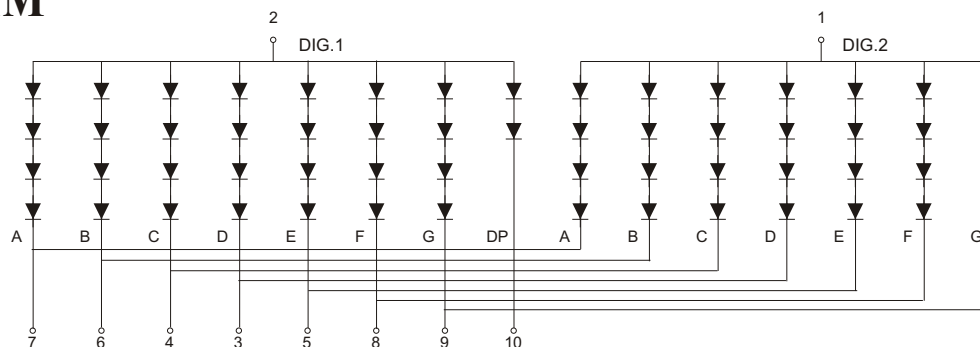
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PACKAGE DIMENSION



INTERNAL CIRCUIT DIAGRAM

Common Anode
NFD-23021Bx-N2



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