



2.30"(56.80mm)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.(DP)		Luminous Intensity Iv/Seg.(DP)	
				Typ.	Max.	Min.	Typ.
NFD-23011AUHR-21	NFD-23011BUHR-21	AlGaInP/GaAs Ultra Red	640	8.00 (4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
NFD-23011AUE-21	NFD-23011BUE-21	AlGaInP/GaAs Ultra Orange	632	8.00 (4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
NFD-23011AYO-21	NFD-23011BYO-21	AlGaInP/GaAs Ultra Amber	605	8.00 (4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
NFD-23011AUY-21	NFD-23011BUY-21	AlGaInP/GaAs Ultra Yellow	590	8.00 (4.00)	10.00(5.00)	160.00(80.00)	240.00(120.00)
NFD-23011AUG-21	NFD-23011BUG-21	AlGaInP/GaAs Ultra Green	574	8.40 (4.20)	10.00(5.00)	100.00(50.00)	160.00(80.00)
NFD-23011APG-21	NFD-23011BPG-21	InGaN/SiC Pure Green	525	13.20 (6.60)	15.20(7.60)	600.00(300.00)	800.00(400.00)
NFD-23011AUB-21	NFD-23011BUB-21	InGaN/SiC Ultra Blue	470	13.20 (6.60)	15.20(7.60)	160.00(80.00)	400.00(200.00)
NFD-23011AUW-21	NFD-23011BUW-21	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*30	65*30	65*30	65*30	75*30	110*30	120*30	120*30	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

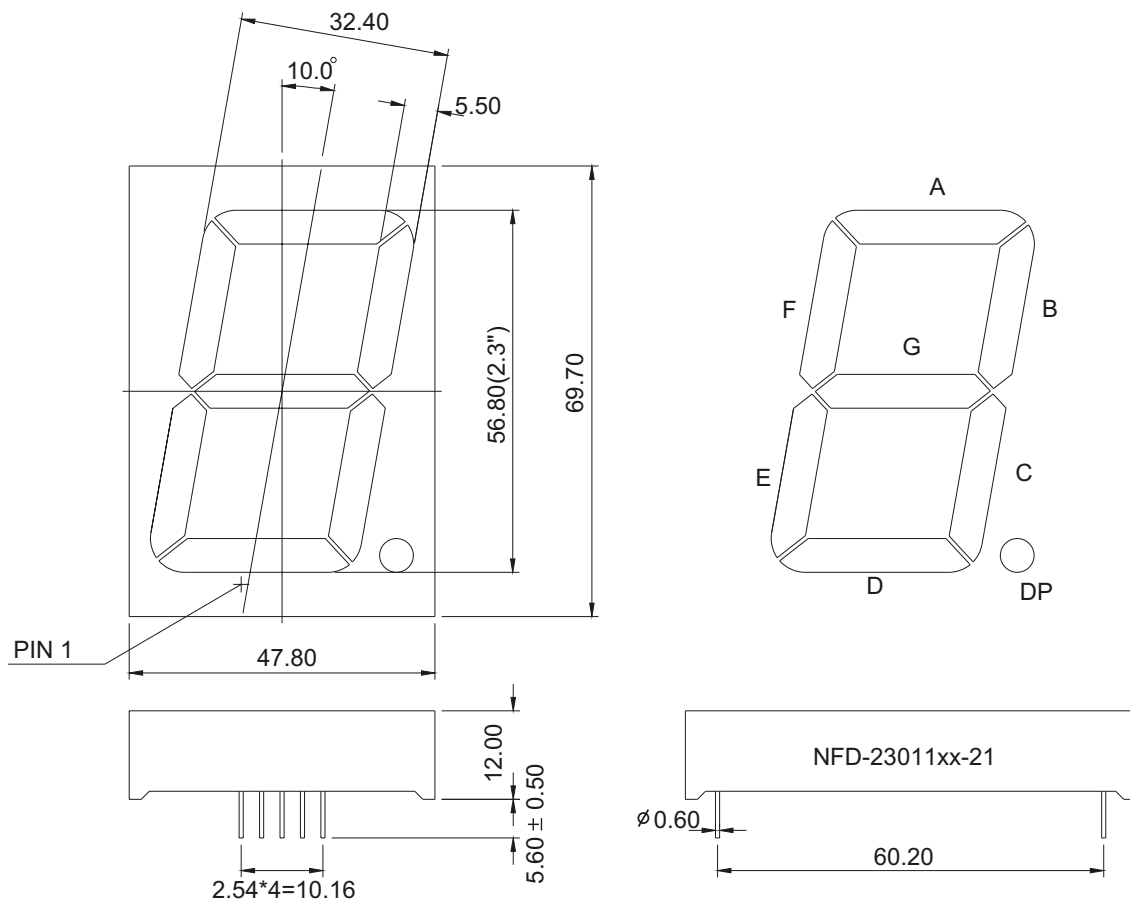
Mar/15/2007

PAGE 1 / 2



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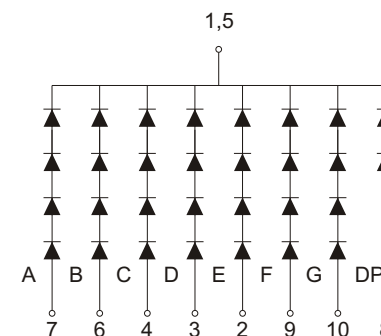
PACKAGE DIMENSION



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

INTERNAL CIRCUIT DIAGRAM

Common Cathode NFD-23011Ax



Common Anode NFD-23011Bx

