



## 1.80"(45.00mm)Single Digit 7 Segment Display

### Features:

- \*Ultra segment intensity
- \*Wide viewing angle
- \*Range of colors
- \*Black 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 <sub>F</sub> /Seg.(DP)		Luminous Intensity I <sub>v</sub> /Seg.(DP)	
				Typ.	Max.	Min.	Typ.
NFD-18011EUHR-11	NFD-18011FUHR-11	AlGaInP/GaAs Ultra Red	640	2.00	2.50	80.00 (40.00)	120.00(60.00)
NFD-18011EUE-11	NFD-18011FUE-11	AlGaInP/GaAs Ultra Orange	632	2.00	2.50	80.00 (40.00)	120.00(60.00)
NFD-18011EYO-11	NFD-18011FYO-11	AlGaInP/GaAs Ultra Amber	605	2.00	2.50	80.00 (40.00)	120.00(60.00)
NFD-18011EUY-11	NFD-18011FUY-11	AlGaInP/GaAs Ultra Yellow	590	2.00	2.50	80.00 (40.00)	120.00(60.00)
NFD-18011EUG-11	NFD-18011FUG-11	AlGaInP/GaAs Ultra Green	574	2.10	2.50	50.00 (25.00)	80.00 (40.00)
NFD-18011EPG-11	NFD-18011FPG-11	InGaN/SiC Pure Green	525	3.30	3.80	300.00(150.00)	400.00(200.00)
NFD-18011EUB-11	NFD-18011FUB-11	InGaN/SiC Ultra Blue	470	3.30	3.80	80.00 (40.00)	200.00(100.00)
NFD-18011EUW-11	NFD-18011FUW-11	InGaN/SiC Ultra White	X-0.31/Y-0.31	3.30	3.80	400.00 (200.00)	1000.00(500.00)
Units			nm	V		mcd	

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

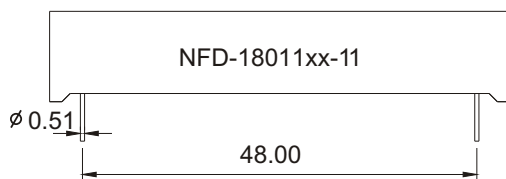
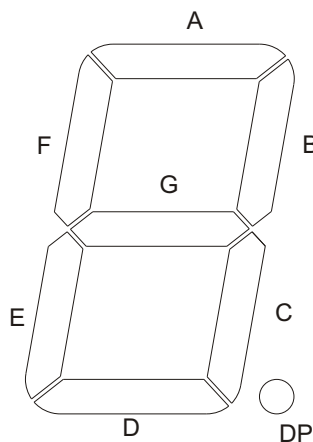
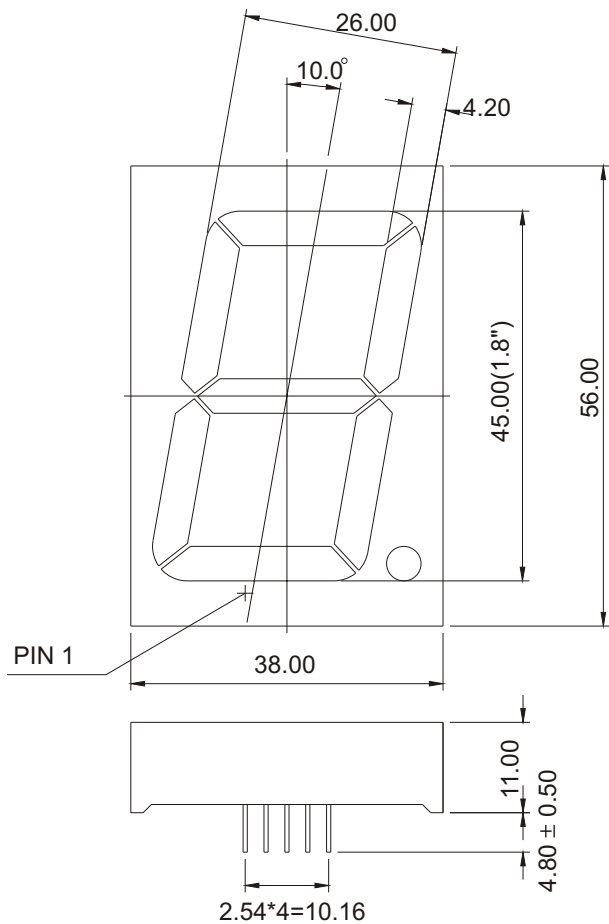
Characteristic	Test Condition	Symbol	UHR	UE	YO	UY	UG	PG	UB	UW	Units
Pulse Forward Current Per Seg.	1/10 duty cycle 0.1ms Pulse width	I <sub>FP</sub>	100	100	100	100	100	100	100	100	mA
DC Forward Current Per Seg.		I <sub>F</sub>	30	30	30	30	30	30	30	30	mA
Reverse Current Per Seg.	V <sub>R</sub> =10V	I <sub>R</sub>	10	10	10	10	10	10	10	10	μA
Power Dissipation		P <sub>D</sub>	60*15	65*15	65*15	65*15	75*15	110*15	120*15	120*15	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	Dec/17/2006	PAGE 1 / 2
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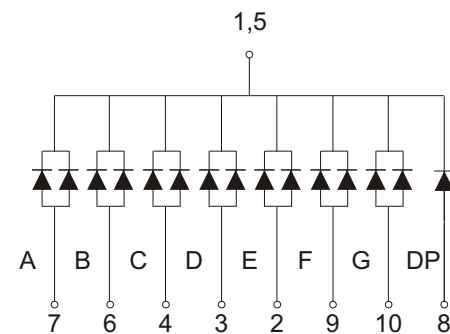
## PACKAGE DIMENSION



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

## INTERNAL CIRCUIT DIAGRAM

### Common Cathode NFD-18011Ex



### Common Anode NFD-18011Fx

