

High Reliability 0.8-inch 4-Digits 7-Segment Numeric LED Displays

SND-840 SND-847

GENERAL DESCRIPTION

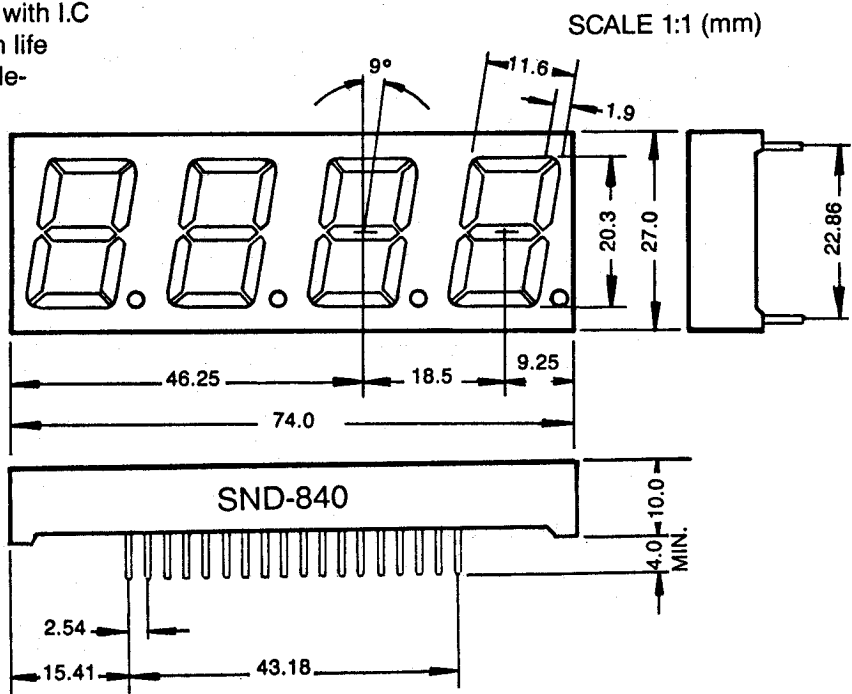
The SND-840 and the SND-847 series are high performance epoxy resin molded 4-digit 7-segment LED displays of which character height is 0.8 inch (20.3mm). These series provide excellent readability in bright ambients and available in three emitting colors; red, orange and yellow-green.

The standard unit is constructed with black face and milky white segment color.

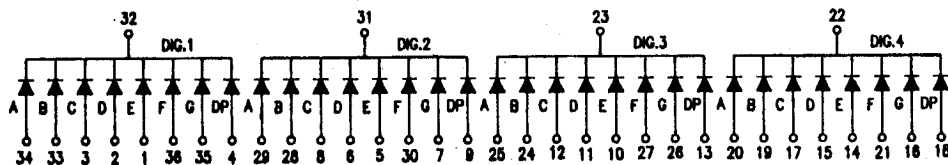
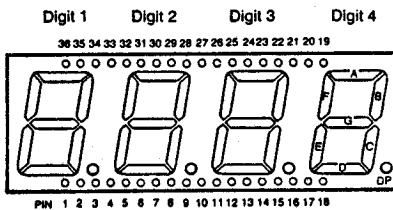
FEATURES

1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption; Directly drive with I.C
4. Solid state reliability and long operation life
5. Cathode-common (SND-840) and anode-common (SND-847) types available

PACKAGE DIMENSIONS



CONNECTIONS GUIDE (Top View)



SND-840 (Cathode Common)

SND-847 (Anode Common) All diodes are reversed polarity



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Red SND 840/847UR (GaAlAs)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	1280	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	1.9	2.1	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	1300	2500	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	20	—	nm

Orange SND 840/847SR (GaAsP/GaP)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	1280	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	2.0	2.2	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	500	1000	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	35	—	nm

Yellow-green SND 840/847UG (GaP)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

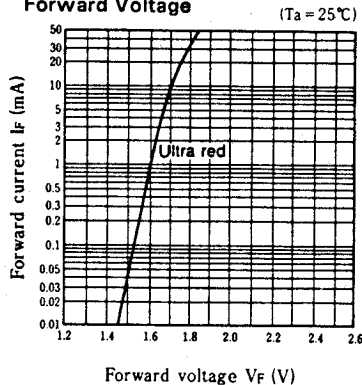
Power dissipation/Total	1280	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

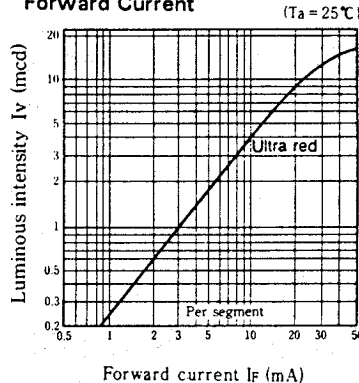
Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	2.1	2.3	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	600	1300	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5

Forward Current vs. Forward Voltage



Luminous Intensity vs. Forward Current



Spectrum Distribution

