

High Reliability 0.8-inch 5-Digits 7-Segment Numeric LED Displays

SND-850 SND-857

GENERAL DESCRIPTION

The SND-850 and the SND-857 series are high performance epoxy resin molded 5-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.

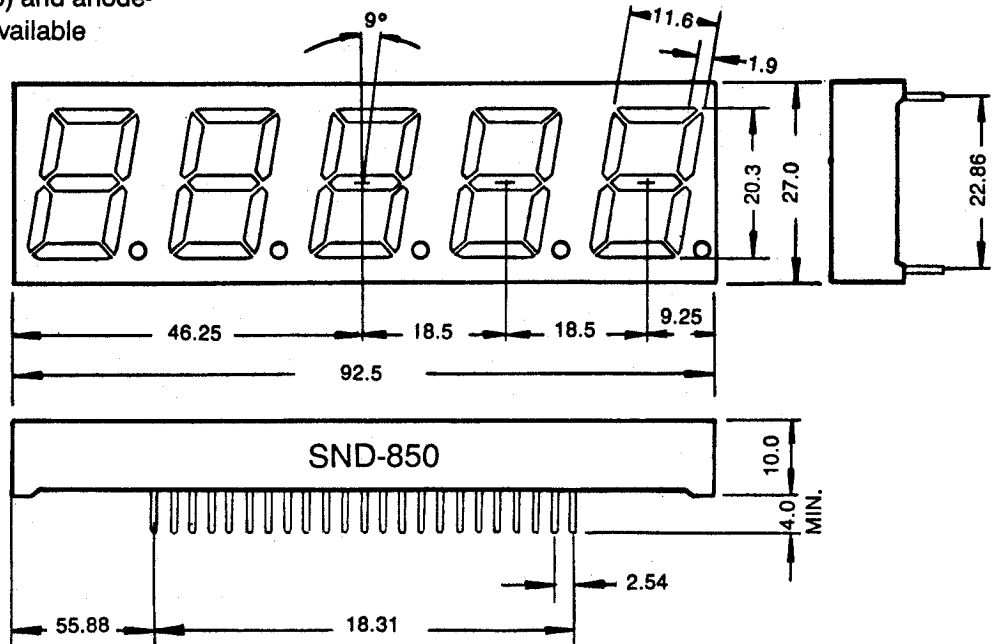
The standard unit is constructed with black face and milky white segment color.

FEATURES

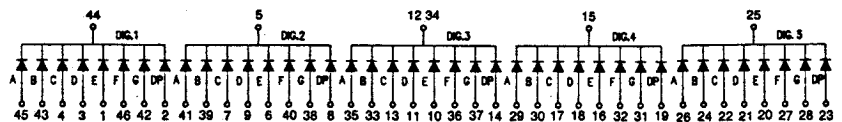
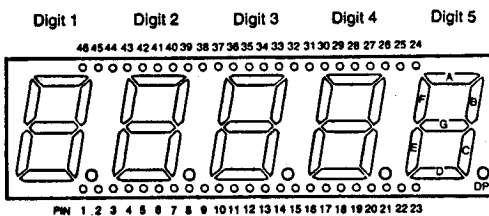
1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption; Directly drive with I.C
4. Solid state reliability and long operation life
5. Cathode-common (SND-850) and anode-common (SND-857) types available

PACKAGE DIMENSIONS

SCALE 1:1 (mm)



PIN CONNECTIONS (Top View)



SND-850 (Cathode Common)

SND-857 (Anode Common) All diodes are reversed polarity

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Red SND 850/857UR (GaAlAs)

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

Power dissipation/Total	1600	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 850/857SR (GaAsP/GaP)

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

Power dissipation/Total	1600	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 850/857UG (GaP)

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

Power dissipation/Total	1600	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

