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

SND-830
SND-837

GENERAL DESCRIPTION

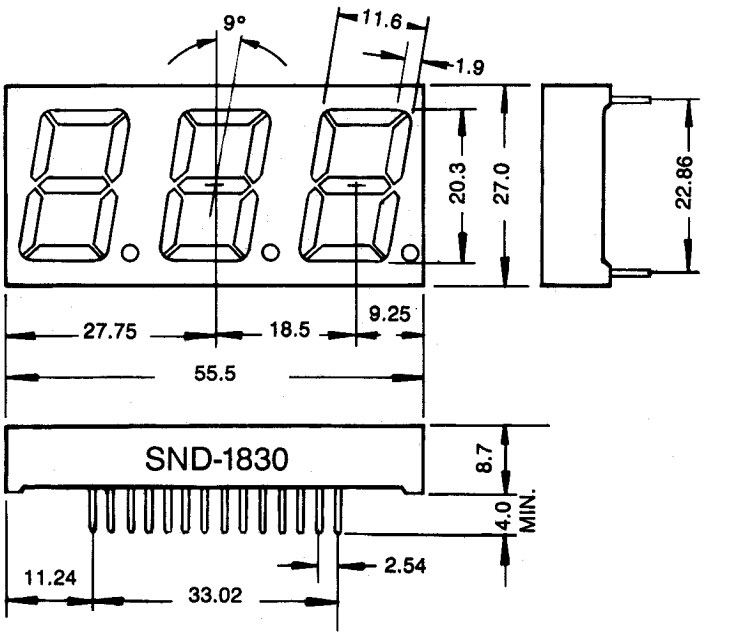
The SND-830 and the SND-837 series are high performance epoxy resin molded triple-digit 7-segment LED displays of which character height is 0.8 inch (20.3mm). These series provide excellent readability in bright ambients and available in three emitting colors; red, orange and yellow-green.
The standard unit is constructed with black face and milky white segment color.

FEATURES

1. High brightness and with 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-830) and anode-common (SND-837) types available

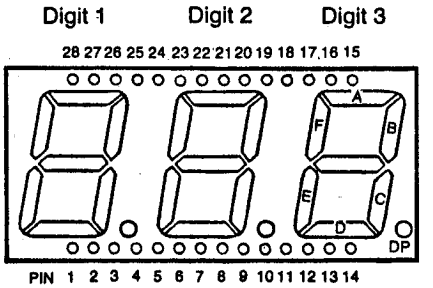
PACKAGE DIMENSIONS

SCALE 1:1 (mm)

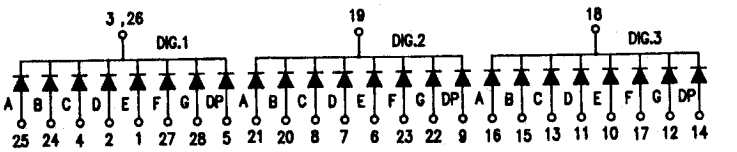


PIN ARRANGEMENT

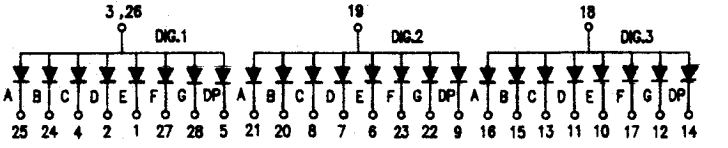
(Top View)



SND-830 (Cathode Common)



SND-837 (Anode Common)



三光半導体株式會社
SAM KWANG SEMICONDUCTOR CO.,LTD.
803 Silla Techno Vil., 39-3 Dang-dong Kunpo-City Kyungki-do, Korea,
TEL:031-456-1444/1484, FAX:031-456-4224

Red SND 830/837UR (GaAlAs)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	960	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	−25 ~ +85	°C
Storage temperature	−55 ~ +100	°C

Electrical/Optical Characteristics (T_a=25°C)

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

Orange SND 830/837SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	960	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	−25 ~ +85	°C
Storage temperature	−55 ~ +100	°C

Electrical/Optical Characteristics (T_a=25°C)

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

Yellow-green SND 830/837UG (GaP)

Absolute Maximum Ratings (T_a=25°C)

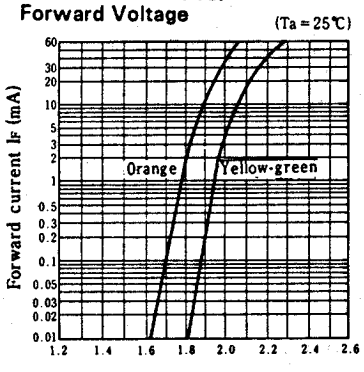
Power dissipation/Total	960	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	−25 ~ +85	°C
Storage temperature	−55 ~ +100	°C

Electrical/Optical Characteristics (T_a=25°C)

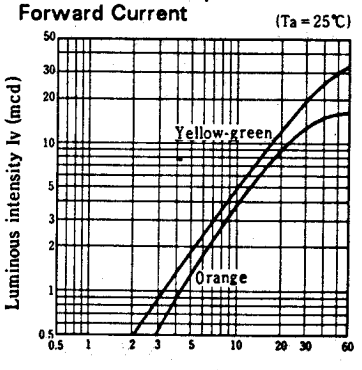
Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	I_F = 10mA	—	2.1	2.3	V
Reverse current/Seg	I_R	V_R = 4V	—	—	10	μA
Luminous intensity/digit	Iv	I_F = 10mA	600	1300	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I_F = 10mA	—	30	—	nm

* Pulse Width ..... 1 ms
Duty Cycle 1/5

Forward Current vs. Forward Voltage



Luminous Intensity vs. Forward Current



Spectrum Distribution