

# High Reliability 0.4-inch Triple-Digits 7-Segment Numeric Displays

# SND-430A SND-437A

## GENERAL DESCRIPTION

The SND-430A and the SND-437A series are high performance epoxy resin molded 3-digit 7-segment LED displays of which character height is 0.4-inch (10.16mm) and available in red, green, orange and yellow-green emitting colors. The standard unit is constructed with black face and milky white segment color.

## PACKAGE DIMENSIONS

Actual size

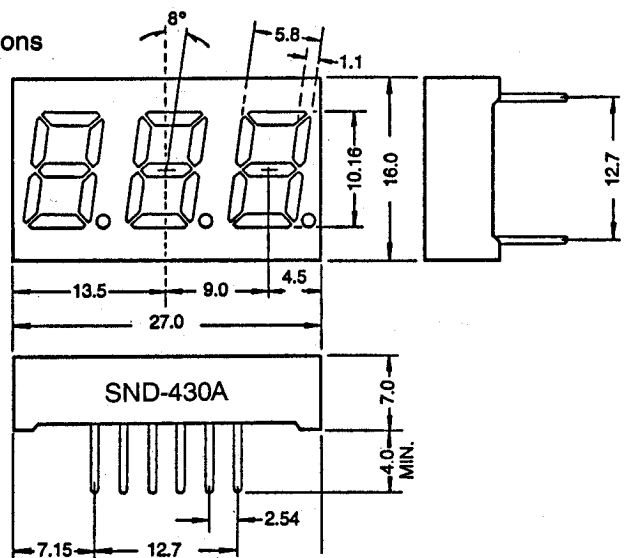
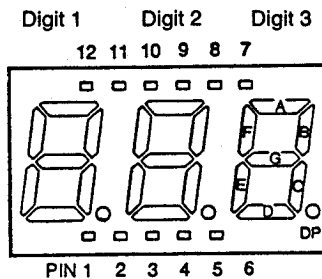


## FEATURES

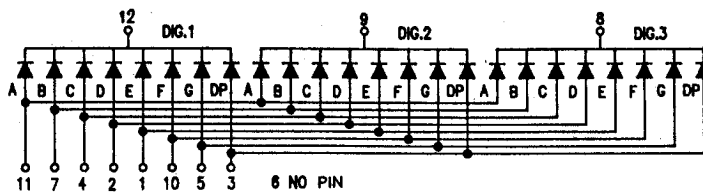
1. High brightness and high contrast
2. Low power consumption; Directly drive with I.C
3. Wide angle viewing
4. Solid state reliability; Long operation life
5. Match to SND-440A/447A series for 7 digits of applications
6. Cathode-common (SND-430A) and anode-common (SND-437A) types available

## PIN ARRANGEMENT

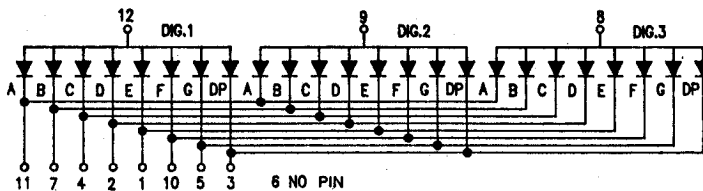
(Top View)



SND-430A (Cathode Common)



SND-437A (Anode Common)



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### Red SND 430A/437AR (GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 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<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.1	2.3	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	300	800	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	700	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	100	—	nm

### Green SND 430A/437AG (GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 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<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.1	2.3	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	350	900	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	555	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	30	—	nm

### Orange SND 430A/437SR (GaAsP/GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 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<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.0	2.2	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	700	1500	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	35	—	nm

### Yellow-green SND 430A/437AUG (GaP)

#### Absolute Maximum Ratings (T<sub>a</sub> = 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<sub>a</sub> = 25°C)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V <sub>F</sub>	I <sub>F</sub> = 10mA	—	2.1	2.3	V
Reverse current/Seg	I <sub>R</sub>	V <sub>R</sub> = 4V	—	—	10	μA
Luminous intensity/digit	I <sub>v</sub>	I <sub>F</sub> = 10mA	600	1500	—	μcd
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I <sub>F</sub> = 10mA	—	30	—	nm

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