High Reliability 1.0-inch Triple-Digits 7-Segment Numeric LED Displays

SND-1030
SND-1037

GENERAL DESCRIPTION

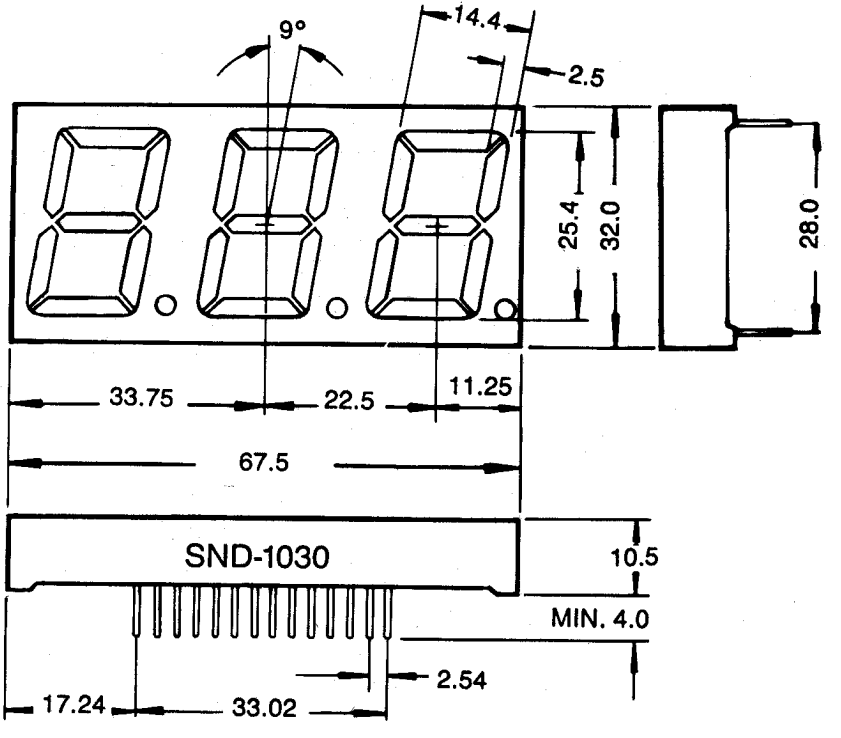
The SND-1030 and the SND-1037 series are high performance epoxy resin molded triple-digits 7-segment LED displays of which character height is 1.0 inch (25.4mm) and there is a choice of three emitting colors; red, orange and yellow-green. These series provide two configurations; single chip per segment for an economical grade and two chips in series per segment for a standard unit.
The standard units are 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
4. Solid state stability and long operation life
5. Cathode-common (SND-1030) and anode-common (SND-1037) types available

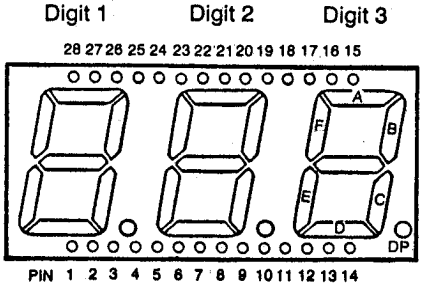
PACKAGE DIMENSIONS

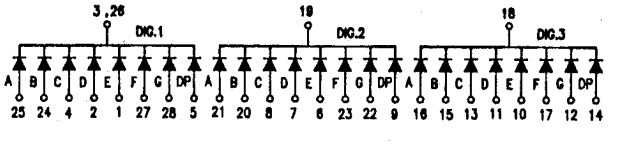
SCALE 1:1 (mm)



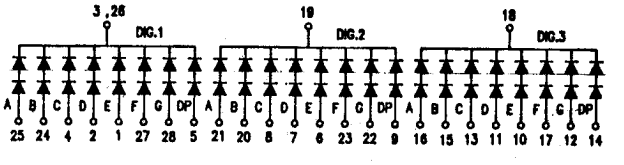
PIN CONNECTIONS

(Top View)





SND-1030 (Cathode Common)



SND-1030-2 (Cathode Common)

SND-1037 / SND-1037-2 (Anode Common) All diodes are reversed polarity

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Red SND 1030/1037UR (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	I_V	I_F = 10mA	1000	2000	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	20	—	nm

Orange SND 1030SR/1037SR (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	I_V	I_F = 10mA	500	1000	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	35	—	nm

Orange SND 1030SR2/1037SR2 (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1920	mW
Power dissipation/Seg	80	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	10	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	—	4.0	4.4	V
Reverse current/Seg	I_R	V_R = 10V	—	—	10	μA
Luminous intensity/digit	I_V	I_F = 10mA	800	1500	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	35	—	nm

Yellow-green SND 1030UG2/1037UG2 (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	1920	mW
Power dissipation/Seg	80	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	10	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	—	4.2	4.6	V
Reverse current/Seg	I_R	V_R = 10V	—	—	10	μA
Luminous intensity/digit	I_V	I_F = 10mA	700	1500	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	30	—	nm

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