

High Reliability 1.0-inch 4-Digits 7-Segment Numeric LED Displays

SND-1040 SND-1047

GENERAL DESCRIPTION

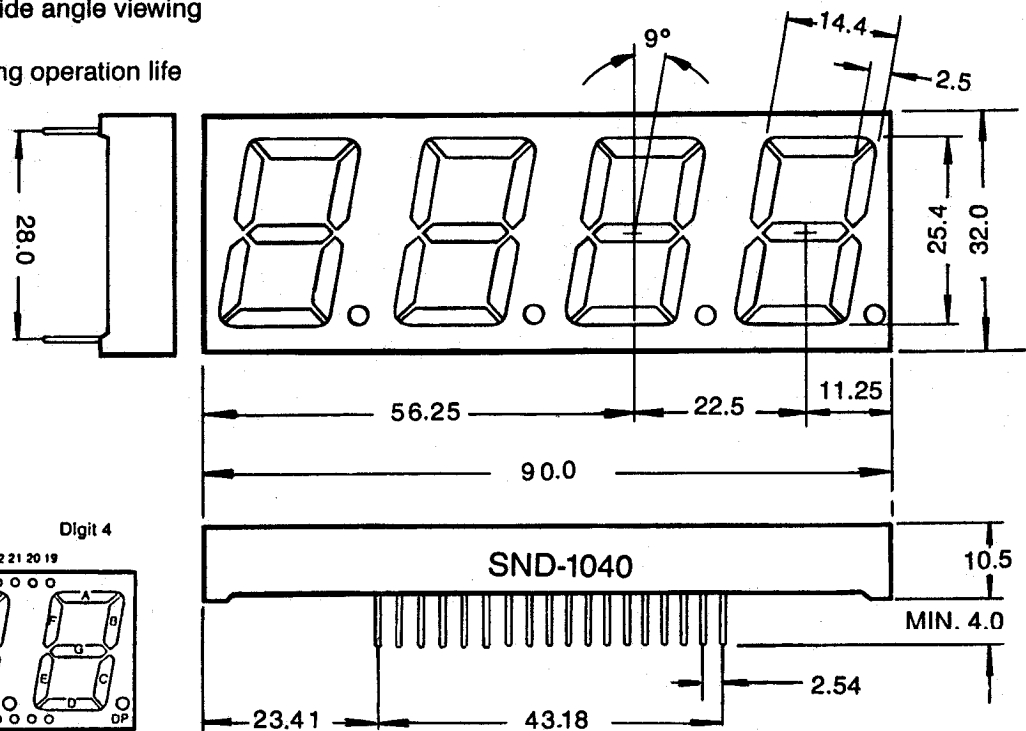
The SND-1040 and the SND-1047 series are high performance epoxy resin molded four-digits 7-segment LED displays of which character height is 1.0 inch (25.4mm) and there is a choice of three emitting colors; red, orange and yellow-green. These series provide two configurations; single chip per segment 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

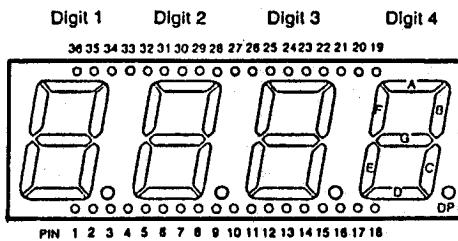
1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Low power consumption
4. Solid state stability and long operation life

PACKAGE DIMENSIONS

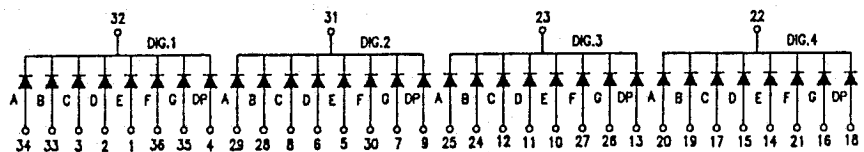
SCALE 1:1 (mm)



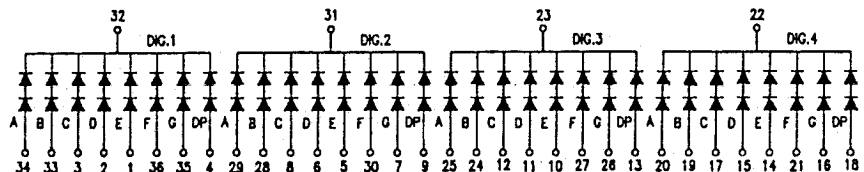
PIN CONNECTIONS (Top View)



SND-1040 (Cathode Common)



SND-1040-2 (Cathode Common)



SND-1047/SND-1047-2 (Anode Common) All diodes are reversed polarity



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Red SND 1040/1047UR (GaAlAs)

Absolute Maximum Ratings (T_a = 25°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	°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	Δλ	I _F = 10mA	—	20	—	nm

Orange SND 1040/1047SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a = 25°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	°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	Δλ	I _F = 10mA	—	35	—	nm

Orange SND 1040SR2/1047SR2 (GaAsP/GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	2560	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	Δλ	I _F = 10mA	—	35	—	nm

Yellow-green SND 1040UG2/1047UG2 (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	2560	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	Δλ	I _F = 10mA	—	30	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5