

High Reliability 0.4-inch 5-Digits 7-Segment Numeric Displays

SND-450A SND-457A

GENERAL DESCRIPTION

The SND-450A and the SND-457A series are high performance epoxy resin molded 5-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 units are constructed with black face and milky white segment color.

PACKAGE DIMENSIONS

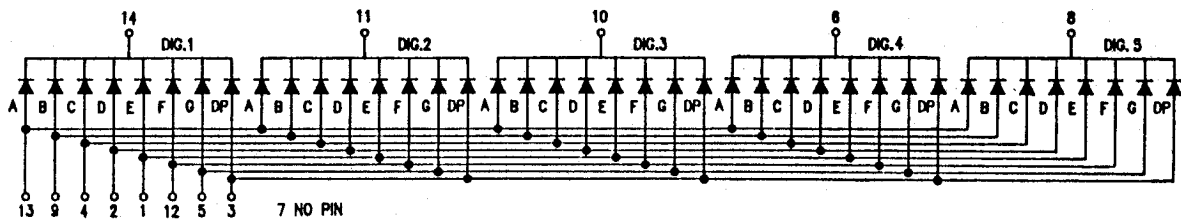
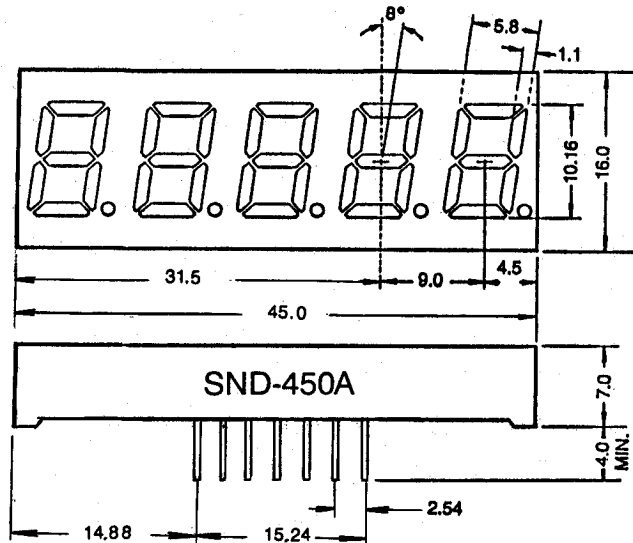
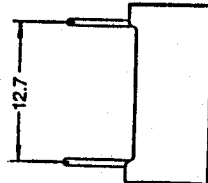
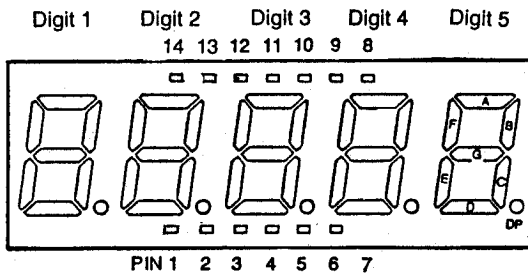
Actual size

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. Cathode-common (SND-450A) and anode-common (SND-457A) types available



PIN ARRANGEMENT (Top View)



SND-450A (Cathode Common)

SND-457A (Anode Common) All diodes are reversed polarity



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Red SND 450A/457AR (GaP)

Absolute Maximum Ratings (T_a=25°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	°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	I _v	I _F = 10mA	300	800	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	700	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	100	—	nm

Green SND 450A/457AG (GaP)

Absolute Maximum Ratings (T_a=25°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	°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	I _v	I _F = 10mA	350	900	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	555	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	30	—	nm

Orange SND 450A/457ASR (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°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	°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	700	1500	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	635	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	35	—	nm

Yellow-green SND 450A/457AUG (GaP)

Absolute Maximum Ratings (T_a=25°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	°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	I _v	I _F = 10mA	600	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