

High Reliability 0.6-inch 7-Segment Numeric Displays

SND-610B SND-617B

GENERAL DESCRIPTION

The SND-610B and the SND-617B series are high reliability epoxy resin molded 7 segment LED displays of which character height is 0.6-inch(15.24mm) and available in red, green, orange and yellow-green. The standard units are constructed with black face and milky white segment color.

Actual size

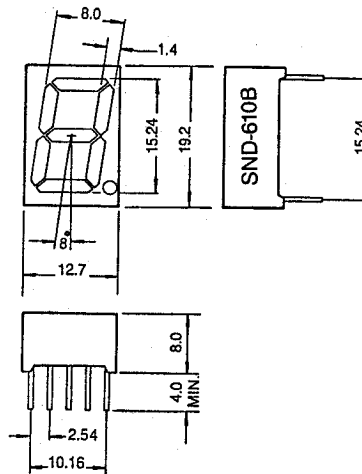


FEATURES

1. High brightness with high 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 (SND610B) and anode common (SND617B) types available

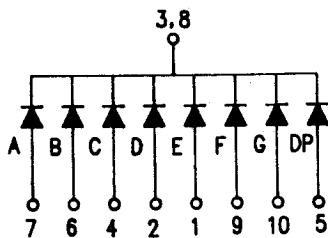
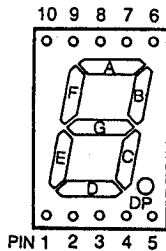
PACKAGE DIMENSIONS

SCALE 1:1 (mm)

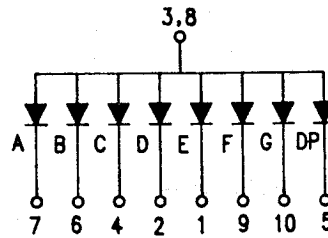


PIN CONNECTIONS

(Top View)



SND-610B (Cathode Common)



SND-617B (Anode Common)

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Red SND 610B/617BR (GaP)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	2.1	2.3	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	200	700	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	700	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	30	—	nm

Orange SND 610B/617BSR (GaAsP/GaP)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	2.0	2.2	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	600	1300	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	35	—	nm

Yellow-green SND 610B/617BUG (GaP)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

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

Red SND 610B/617BUR (GaAlAs)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Power dissipation/Total	320	mW
Power dissipation/Seg	40	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	-25 ~ +85	$^\circ\text{C}$
Storage temperature	-55 ~ +100	$^\circ\text{C}$

Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	$I_F = 10\text{mA}$	—	1.85	2.1	V
Reverse current/Seg	I_R	$V_R = 4\text{V}$	—	—	10	μA
Luminous intensity/digit	I_v	$I_F = 10\text{mA}$	1800	3000	—	μcd
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	660	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	—	20	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5