

High Brightness 2.3-inch Dual-Color 7-Segment Numeric LED Displays

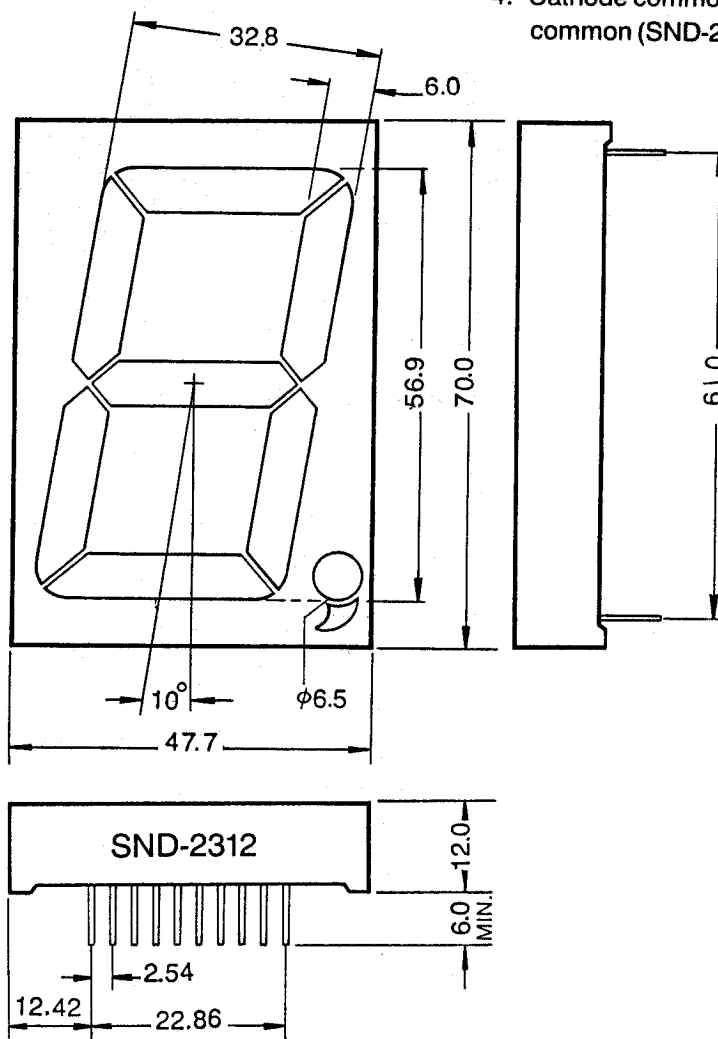
SND-2312 SND-2319

GENERAL DESCRIPTION

The SND-2312 and SND-2319 are high performance dual color 7 segment numeric LED displays of which character height is 2.3 inch (56.9 mm). Three red and green chips are contained in each segment and it could be displayed in red or green color separately and appears in amber color when drive to red and green side in the same time.

PACKAGE DIMENSIONS

SCALE 1:1 (mm)



FEATURES

1. High brightness with high contrast
2. Uniform brightness and wide angle viewing
3. Solid state stability and long operation life
4. Cathode common (SND-2312) and anode common (SND-2319) types available.

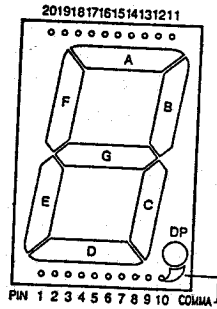


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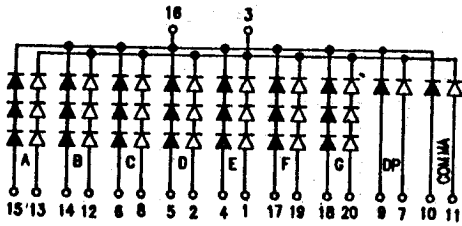
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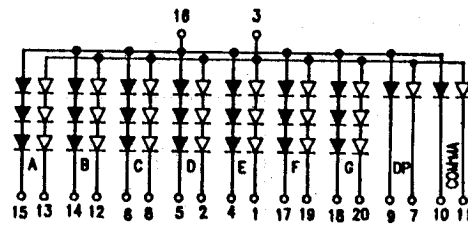
PIN ARRANGEMENT (Top View)



= ORANGE
 = GREEN



SND-2312 (Cathode Common)



SND-2319 (Anode Common)

SND 2312/2319SR-UG (GaAsP/GaP-GaP)

Orange SR SIDE (GaAsP/GaP)

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

Power dissipation/Total	920	mW
Power dissipation/Seg	120	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	15	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	$I_F = 15\text{mA}$	—	6.0	6.6	V
Reverse current/Seg	I_R	$V_R = 15\text{V}$	—	—	10	μA
Luminous intensity/digit	I_V	$I_F = 15\text{mA}$	800	1500	—	μcd
Peak wavelength	λ_P	$I_F = 15\text{mA}$	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 15\text{mA}$	—	35	—	nm

Yellow-green UG SIDE (GaP)

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

Power dissipation/Total	920	mW
Power dissipation/Seg	120	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	15	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	$I_F = 15\text{mA}$	—	6.3	6.9	V
Reverse current/Seg	I_R	$V_R = 15\text{V}$	—	—	10	μA
Luminous intensity/digit	I_V	$I_F = 15\text{mA}$	700	1500	—	μcd
Peak wavelength	λ_P	$I_F = 15\text{mA}$	—	565	—	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 15\text{mA}$	—	30	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5