

High Brightness 18.0x12.0mm Flat LED Displays

SBD 1812 SBD 1812L

GENERAL DESCRIPTION

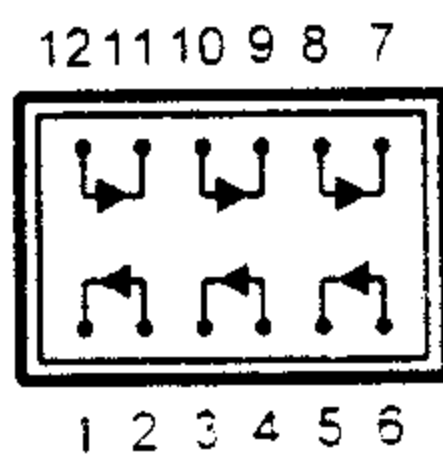
The SBD 1812 series are flat LED displays reflecting high brightness. The active face size is 16.4x10.4mm and available in red, orange, and yellow-green emitting colors.

FEATURES

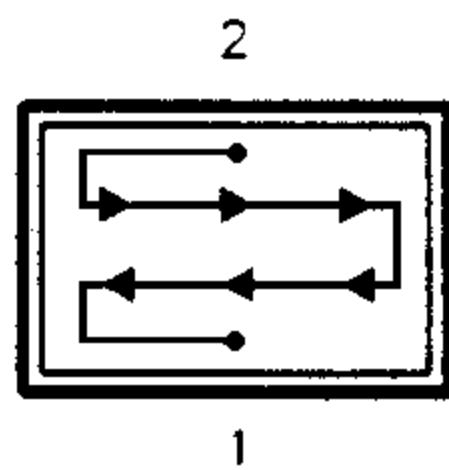
1. High brightness and high contrast
2. Low power consumption
4. Solid state reliability and long operation life
5. Wide angle viewing

PIN ARRANGEMENT

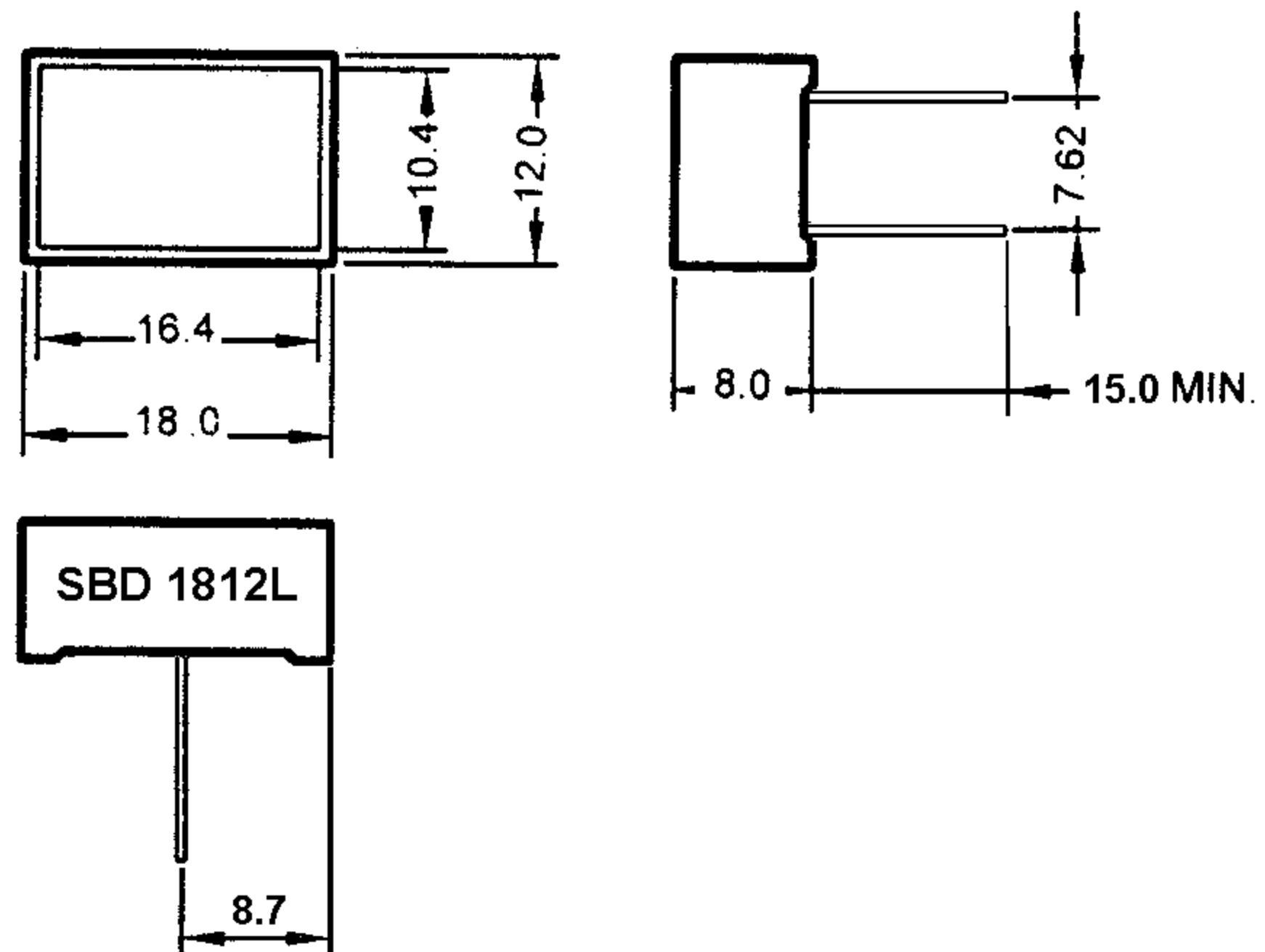
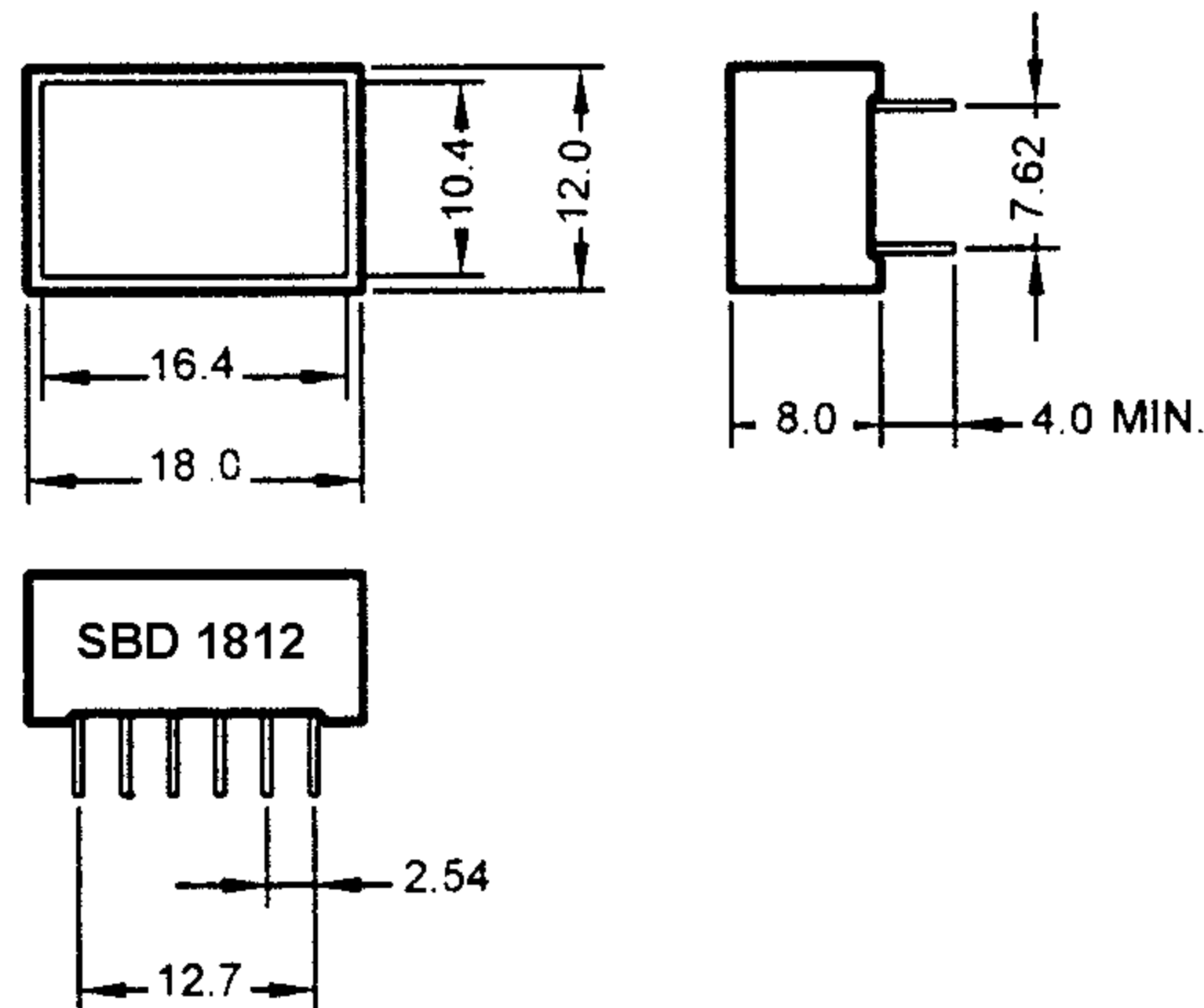
SBD 1812



SBD 1812L



PACKAGE DIMENSIONS



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Orange SBD 1812SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	240	mW
Power dissipation/Chip	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/Chip	V _F	I _F = 10mA	—	2.0	2.2	V
Reverse current/Chip	I _R	V _R = 4V	—	—	10	μA
Luminous Intensity/Chip	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

Yellow-green SBD 1812UG (GaP)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	240	mW
Power dissipation/Chip	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/Chip	V _F	I _F = 10mA	—	2.1	2.3	V
Reverse current/Chip	I _R	V _R = 4V	—	—	10	μA
Luminous Intensity/Chip	I _V	I _F = 10mA	600	1200	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	565	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	30	—	nm

Red SBD 1812UR (GaAlAs)

Absolute Maximum Ratings (T_a = 25°C)

Power dissipation/Total	240	mW
Power dissipation/Chip	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/Chip	V _F	I _F = 10mA	—	1.9	2.1	V
Reverse current/Chip	I _R	V _R = 4V	—	—	10	μA
Luminous Intensity/Chip	I _V	I _F = 10mA	1300	2500	—	μcd
Peak wavelength	λ _P	I _F = 10mA	—	660	—	nm
Spectral line halfwidth	Δλ	I _F = 10mA	—	20	—	nm

* Pulse Width 1 ms
Duty Cycle 1/5