High Brightness 5.0×1.75 8 Bar LED Arrays

SBD-85

GENERAL DESCRIPTION

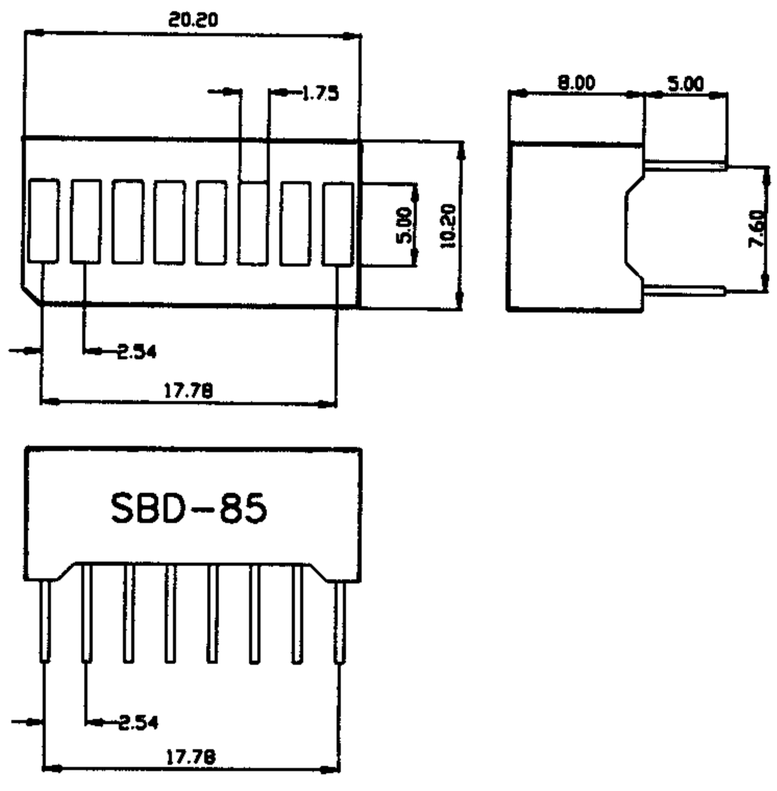
The SBD-85 series of 8 bar light emitting diode arrays has been developed for level meters and other linear display and available in red, orange, green and yellow emitting colors.
The standard units are constructed with black or gray face and milky white segment colors.

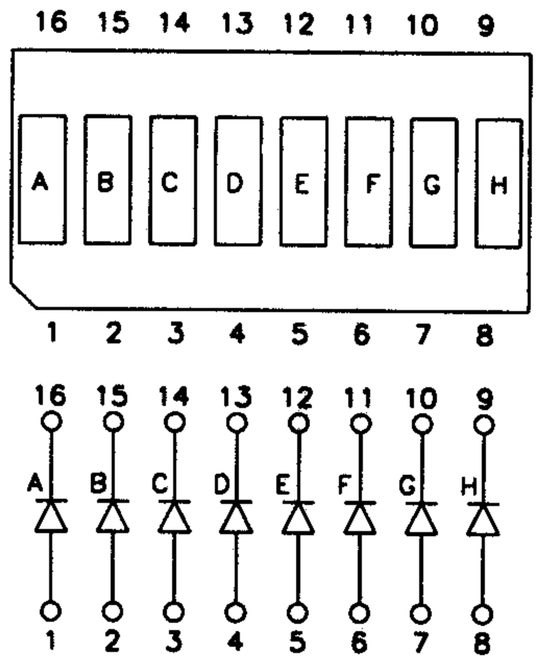
FEATURES

1. High brightness
2. Low power consumption; Directly drive with IC
3. Solid state stability; Long-operation life
4. Could be jointed two or more units
5. Easily identifiable cathode index

Actual size

PACKAGE DIMENSIONS AND CONNECTIONS GUIDE





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Red SBD 85R (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	160	mW
Power dissipation/Chip	20	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	300	800	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	700	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	100	—	nm

Green SBD 85G (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	160	mW
Power dissipation/Chip	20	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	350	900	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	555	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	30	—	nm

Orange SBD 85SR (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	160	mW
Power dissipation/Chip	20	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	700	1500	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	635	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	35	—	nm

Yellow-green SBD 85UG (GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	160	mW
Power dissipation/Chip	20	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	$\Delta\lambda$	I_F = 10mA	—	30	—	nm

Yellow SBD 85Y (GaAsP/GaP)

Absolute Maximum Ratings (T_a=25°C)

Power dissipation/Total	160	mW
Power dissipation/Chip	20	mW
Forward current	20	mA
Peak forward current	60*	mA
Reverse voltage	4	V
Operating temperature	−25 ~ +85	°C
Storage temperature	−55 ~ +100	°C

Pulse Width ..... 1 ms
Duty Cycle 1/5

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	600	1000	—	μcd
Peak wavelength	λ_P	I_F = 10mA	—	585	—	nm
Spectral line halfwidth	$\Delta\lambda$	I_F = 10mA	—	30	—	nm