

High Brightness 5.0×1.75 10 Bar Dual-Color LED Arrays

SBD-1052

GENERAL DESCRIPTION

The SBD-105 series of 10 bar light emitting diode arrays has been developed for level meters and other linear display. A red and green chips are contained in each segment and it could be displayed in red or green color separately and also appears in amber color when drive to red and green in the same time. The standard units are constructed with black or gray face and milky white segment colors.

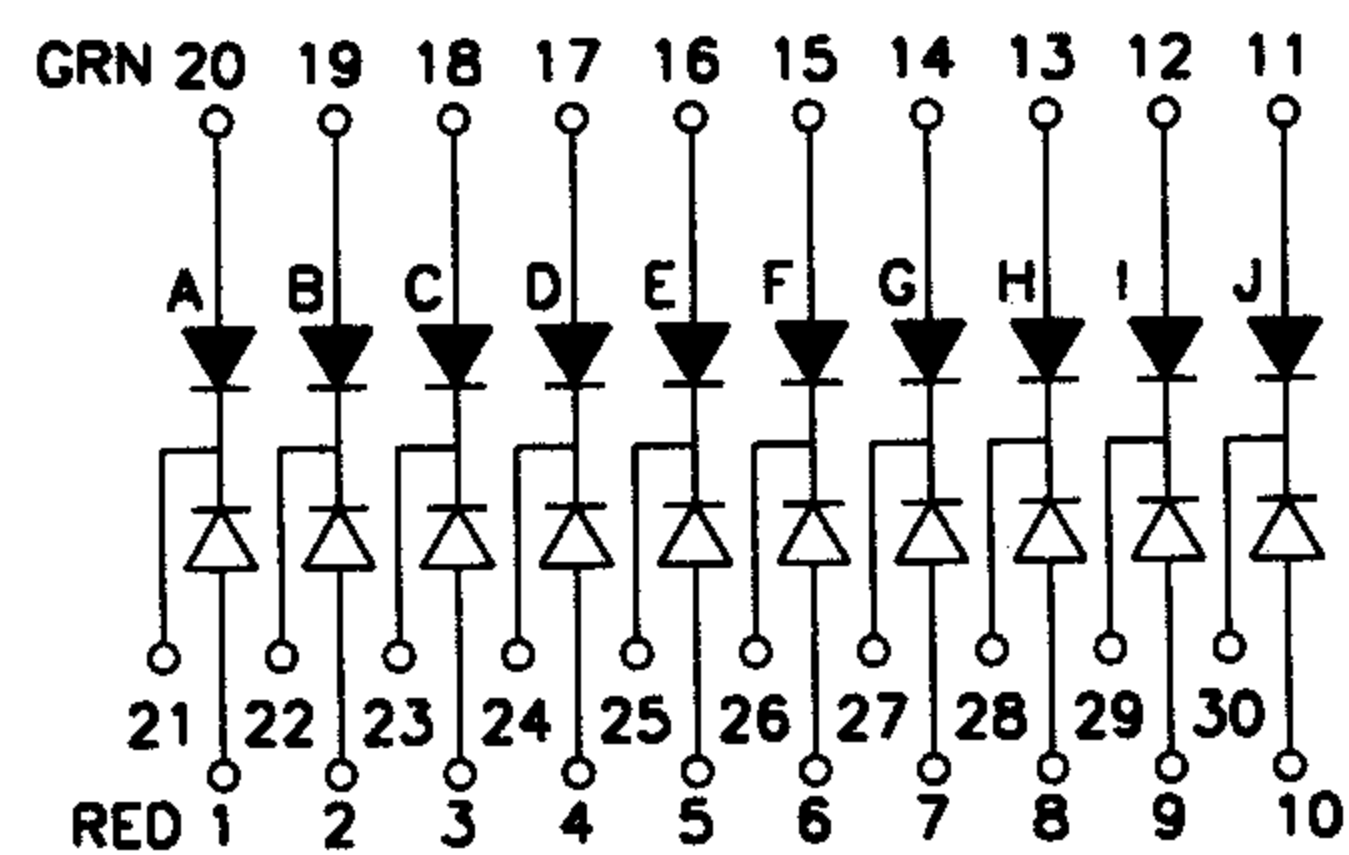
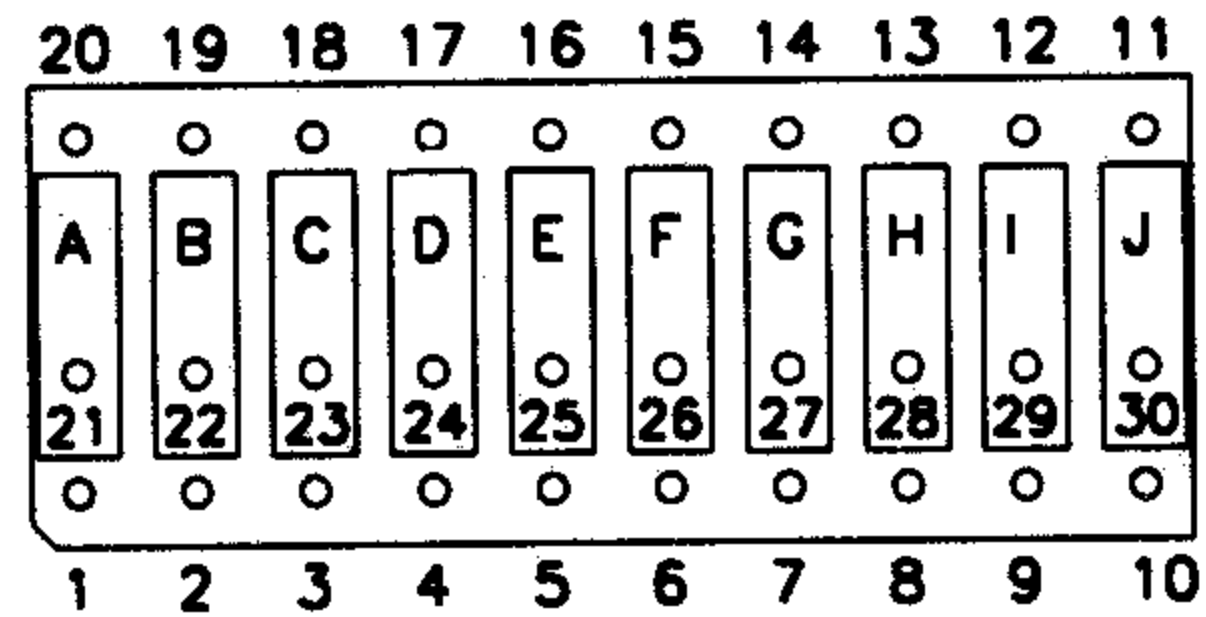
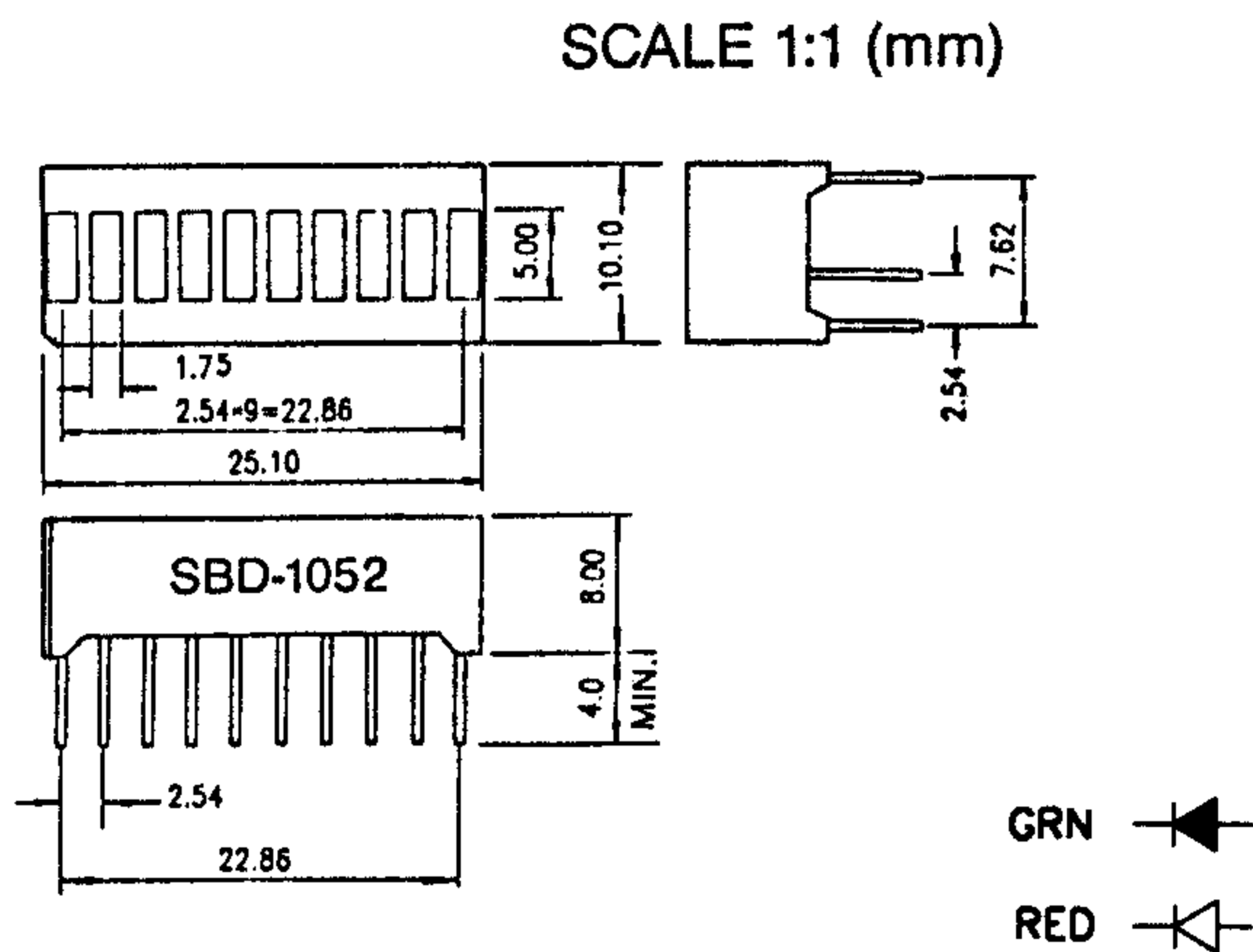
FEATURES

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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SBD 1052SR-UG (GaAsP/GaP-GaP)

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

Power dissipation/Total	400	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	Chip	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	SR	$I_F = 10 \text{ mA}$		2.0	2.2	V
		UG			2.1	2.3	
Reverse current/Seg	I_R	ALL	$V_R = 4 \text{ V}$			10	μA
Luminous intensity/unit	I_V	SR	$I_F = 10 \text{ mA}$	600			μcd
		UG		700			
Peak wavelength	λ_P	SR	$I_F = 10 \text{ mA}$		635		nm
		UG			565		
Spectral line halfwidth	$\Delta\lambda$	SR	$I_F = 10 \text{ mA}$		35		nm
		UG			30		

SBD 1052UR-UG (GaAlAs-GaP)

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

Power dissipation/Total	400	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	Chip	Conditions	Min	Typ	Max.	Unit
Forward voltage/Seg	V_F	UR	$I_F = 10 \text{ mA}$		1.8	2.0	V
		UG			2.1	2.3	
Reverse current/Seg	I_R	ALL	$V_R = 4 \text{ V}$			10	μA
Luminous intensity/unit	I_V	UR	$I_F = 10 \text{ mA}$	700			μcd
		UG		700			
Peak wavelength	λ_P	UR	$I_F = 10 \text{ mA}$		660		nm
		UG			565		
Spectral line halfwidth	$\Delta\lambda$	UR	$I_F = 10 \text{ mA}$		20		nm
		UG			30		

* Pulse Width 1 ms
Duty Cycle 1/5