

Face Length	MM	20.2
Face Width	MM	10.0
Height	MM	6.2
Pin Spacing	MM	2.5
Row Spacing	MM	7.6
No. of pins	Pins	16

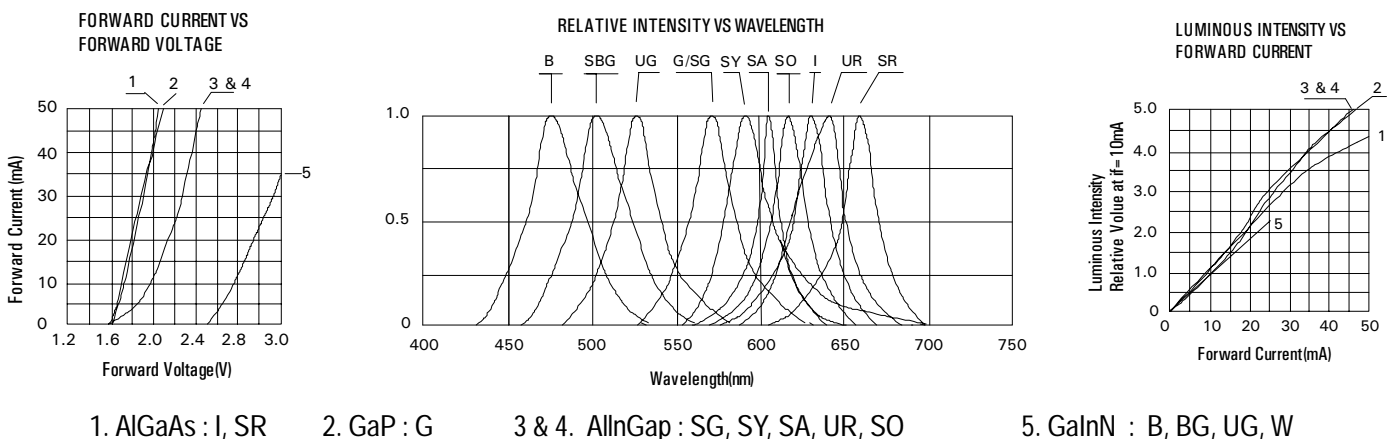
KLLB1020X

1 - 16
2 + 15
3 + 14
4 - 13
5 - 12
6 + 11
7 + 10
8 - 9

Note : All Dimensions are in mm Tolerance ± 0.2 mm

PART NO.			KLLB1020 I	KLLB1020 SR	KLLB1020 G	KLLB1020 SG	KLLB1020 SY	KLLB1020 SA	KLLB1020 UR	KLLB1020 SO	KLLB1020 B/UB	KLLB1020 BG	KLLB1020 UG	KLLB1020 W	
OPERATING CHARACTERISTICS AT 25°C (Bigger Display may have more than one LED chip per segment)		UNITS	SYMBOL	IRE D I	SUPER RED SR	GREEN G	SUPER GREEN SG	SUPER YELLOW SY	SUPER AMBER SA	ULTRA RED UR	SUPER ORANGE SO	BLUE B/UB	BLUE GREEN BG	ULTRA GREEN UG	WHITE W
Semiconductor Composition				AlGaAs		GaP/AlInGaP		AllnGaP			SiC / GalnN				
Forward Voltage - Typical @ 10mA		V	V _F	2.10	1.90	2.20	2.20	2.10	2.10	1.90	1.90	3.50	3.50	3.50	3.50
Forward Voltage - Maximum @ 20 mA		V	V _{FM}	2.40	2.10	2.60	2.40	2.40	2.40	2.10	2.40	4.50	4.50	4.50	4.50
Reverse Current @ V _R = 5V		μA	I _R	100	100	100	100	100	100	100	100	100	100	100	100
Peak Emission Wavelength		nm	λ _p	630	660	568	568	590	610	645	620	470	502	525	---
Emission Wavelength Half Width		nm	Δλ	35	20	30	15	15	15	20	20	25	30	35	---
Luminous Intensity per Segment		μcd	I _v	3500	6000	4000	6000	7000	7500	13000	13000	6000	7000	17000	---
ABSOLUTE MAXIMUM RATINGS AT 25°C															
Reverse Voltage		V	V _R	5	5	5	5	5	5	5	5	5	5	5	5
Forward Current (avg)		mA	I _F	20	20	20	20	20	20	20	20	20	20	20	20
Peak Forward Current (T<1μs)		mA	I _{FS}	80	80	80	80	80	80	80	80	80	80	80	80
Operating / Storage Temperature Range		-10° C to + 85° C													
Lead Soldering Temperature		< 260° C for 5 Seconds													
Series Resistor to be used per segment		: 300 Ohms @ 5V Supply (OR) 50 to 100 Ohms @ 3V Supply													

ELECTRICAL CHARACTERISTIC CURVES



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Email : kwality@kwalityindia.com www.kwalityindia.com

Face Length	MM	10.0
Face Width	MM	10.0
Height	MM	6.2
Pin Spacing	MM	2.5
Row Spacing	MM	7.6
No. of pins	Pins	8
Seg. V _f @10mA	Volts	2.0

KLLB 1513X

Note : All Dimensions are in mm Tolerance ± 0.2 mm

PART NO.														
	KLLB1513 I	KLLB1513 SR	KLLB1513 G	KLLB1513 SG	KLLB1513 SY	KLLB1513 SA	KLLB1513 UR	KLLB1513 SO	KLLB1513 B	KLLB1513 SBG	KLLB1513 UG	KLLB1513 W		
OPERATING CHARACTERISTICS AT 25°C <small>(Bigger Display may have more than one LED chip per segment)</small>	UNITS	SYMBOL	RED I	SUPER RED SR	GREEN G	SUPER GREEN SG	SUPER YELLOW SY	SUPER AMBER SA	ULTRA RED UR	SUPER ORANGE SO	BLUE B	BLUE GREEN SBG	ULTRA GREEN UG	WHITE W
Semiconductor Composition			AlGaAs		GaP/AlInGaP		AlInGaP			SiC / AlGaN				
Forward Voltage - Typical @ 10mA	V	V _F	2.10	1.90	2.20	2.20	2.10	2.10	1.90	1.90	3.50	3.50	3.50	3.50
Forward Voltage - Maximum @ 20 mA	V	V _{FM}	2.40	2.10	2.60	2.40	2.40	2.40	2.10	2.40	4.50	4.50	4.50	4.50
Reverse Current @ V _R = 5V	μA	I _R	100	100	100	100	100	100	100	100	100	100	100	100
Peak Emission Wavelength	nm	λ _P	630	660	568	568	590	610	645	620	470	502	525	---
Emission Wavelength Half Width	nm	Δλ	35	20	30	15	15	15	20	20	25	30	35	---
Luminous Intensity per Segment	μcd	I _V	3500	6000	4000	6000	7000	7500	13000	13000	6000	7000	17000	---
ABSOLUTE MAXIMUM RATINGS AT 25°C														
Reverse Voltage	V	V _R	5	5	5	5	5	5	5	5	5	5	5	5
Forward Current (avg)	mA	I _F	20	20	20	20	20	20	20	20	20	20	20	20
Peak Forward Current (T<1μs)	mA	I _{FS}	80	80	80	80	80	80	80	80	80	80	80	80
Operating / Storage Temperature Range	-40° C to + 85° C													
Lead Soldering Temperature	< 260° C for 5 Seconds													
Series Resistor to be used per segment : 300 Ohms @ 5V Supply (OR) 50 to 100 Ohms @ 3V Supply														

ELECTRICAL CHARACTERISTIC CURVES

