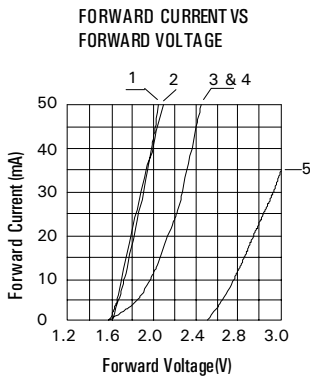


PART NO.	KLLB274X																
	I	SR	G	SG	SY	SA	UR	SO	B	SBG	UG	W					
OPERATING CHARACTERISTICS AT 25°C (Bigger Display may have more than one LED chip per segment)				UNITS	SYMBOL	I _{RED}	SUPER RED SR	GREEN G	SUPER GREEN SG	SUPER YELLOW SY	SUPER AMBER SA	ULTRA RED UR	SUPER ORANGE SO	BLUE B	BLUE 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	$\Delta\lambda$	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	
Peak Forward Current ($T < 1\mu s$)				mA	I_{FS}	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

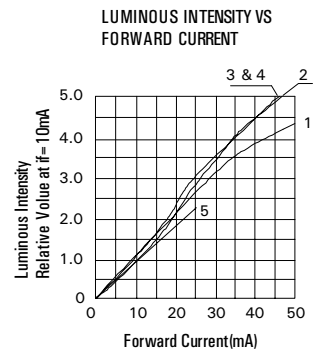
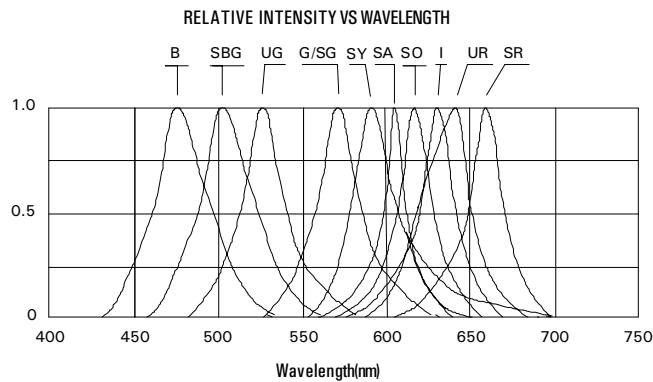


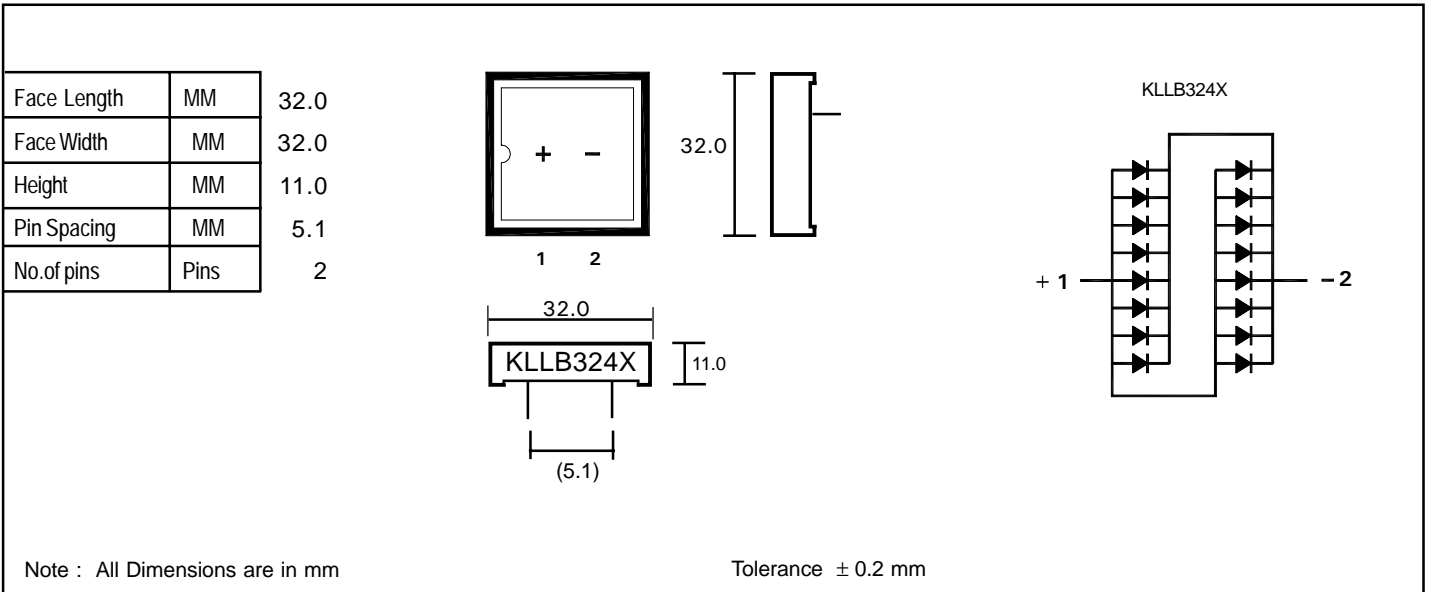
1. AlGaAs : I, SR

2. GaP : G

3 & 4. AlInGaP : SG, SY, SA, UR, SO

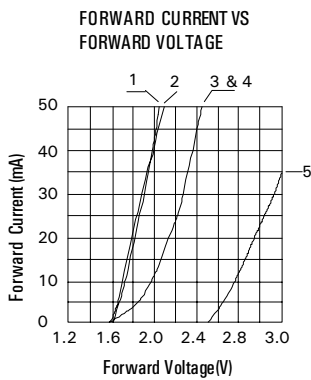
5. GaN : B, SBG, UG, W





PART NO.			KLLB324 I	KLLB324 SR	KLLB324 G	KLLB324 SG	KLLB324 SY	KLLB324 SA	KLLB324 UR	KLLB324 SO	KLLB324 B/UB	KLLB324 BG	KLLB324 UG	KLLB324 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		AlInGaP			SiC / GaInN				
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



1. AlGaAs : I, SR

2. GaP : G

3 & 4. AlInGaP : SG, SY, SA, UR, SO

5. GaInN : B, BG, UG, W

