
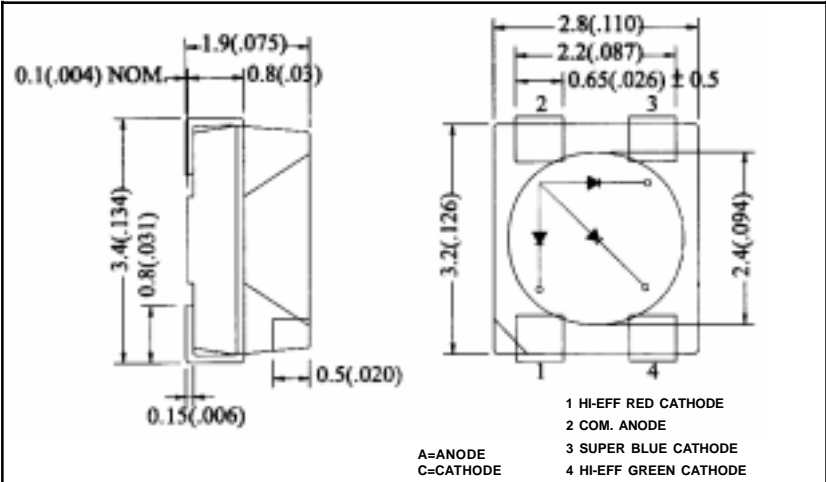


Face Length	MM	2.8
Face Width	MM	3.2
Height	MM	1.9
Pin Spacing	MM	2.2
Row SPacing	MM	3.2
No.of pins	Pins	4
Viewing Angle	2Φ/2 Deg.	120





1 HI-EFF RED CATHODE
2 COM. ANODE
3 SUPER BLUE CATHODE
4 HI-EFF GREEN CATHODE

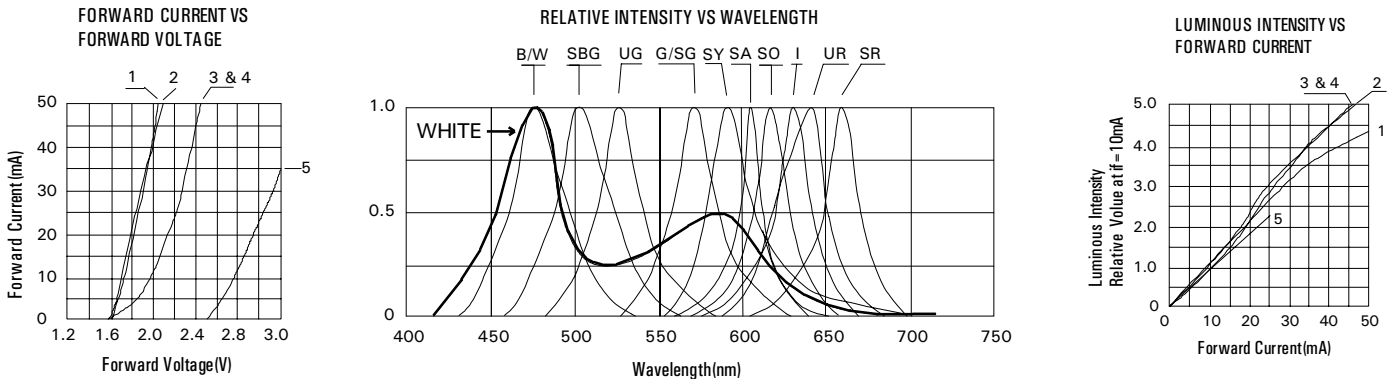
A=ANODE
C=CATHODE

Note : All Dimensions are in mm Tolerance ± 0.2 mm

PART NO.	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	KLSL 3228	
OPERATING CHARACTERISTICS AT 25°C <small>(Bigger Display may have more than one LED chip per segment)</small>	UNITS	SYMBOL	IRED 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 @ 30 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 @ 30mA	mcd	I_V	3500	6000	4000	6000	7000	7500	13000	13000	6000	7000	17000	---
Lumens Flux @70mA	mlm	ϕ_V	-	-	-	-	-	-	-	-	-	-	-	4000
ABSOLUTE MAXIMUM RATINGS AT 25°C	V	V_R	5	5	5	5	5	5	5	5	5	5	5	5
Reverse Voltage	mA	I_F	30	30	30	30	30	30	30	30	30	30	30	30
Forward Current (avg) *(NOTE 1)	mA	I_{FS}	90	90	90	90	90	90	90	90	90	90	90	90
Peak Forward Current (T<1μs)	-20 ° C to + 85° C													
Operating / Storage Temperature Range	< 260° C for 5 Seconds													
Lead Soldering Temperature	Series Resistor to be used per segment : 300 Ohms @ 5V Supply (OR) 50 to 100 Ohms @ 3V Supply													

*NOTE 1. Use Adequate heatsink (250mm² plus) for current above 20mA

ELECTRICAL CHARACTERISTIC CURVES



1. AlGaAs : I, SR 2. GaP : G 3 & 4. AlInGaP : SG, SY, SA, UR, SO 5. GaInN : B, BG, UG, W



KWALITY PHOTONICS PRIVATE LIMITED

29, EC Kushaiguda, Hyderabad-500 062, INDIA. Ph : 91-040-27123555, 27136252 Fax : 91-040-27124762
Email : kwality@kwalityindia.com www.kwalityindia.com