

SURFACE MOUNT LED LAMPS

Features

- Super thin package, wide viewing angle
- Reverse surface mount LEDs
- Low power consumption
- Ideal for backlight and indicator
- Available in blue and other colors
- Various lens types and inner lens type

Descriptions

The bright red source color devices are made with Gallium Phosphide Red LED.

The super bright green source color devices are made with Gallium Phosphide Green LED.

The high efficiency red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange LED.

The yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow LED.

The super bright red source color devices are made with Gallium Aluminum Arsenide red LED.

The super bright yellow source color devices are made with DH InGaAlP on GaAs substrate LED.

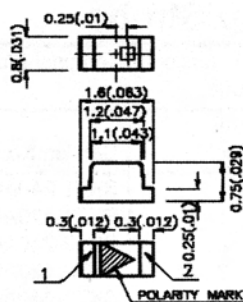


Fig. 1

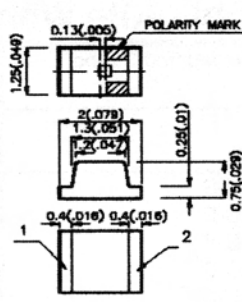


Fig. 2

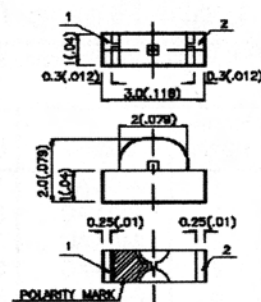


Fig. 3

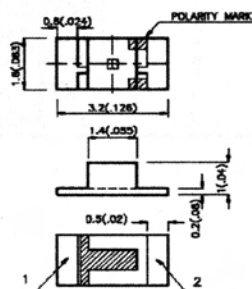


Fig. 4

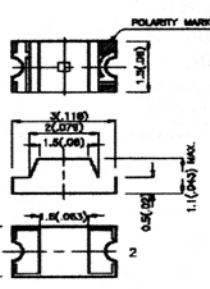


Fig. 5

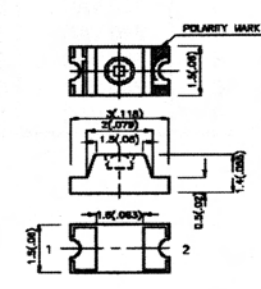


Fig. 6

1.6mm x 0.8mm x 0.75mm (0603 Super Thin SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
1	KPT1608SRWPRV	Red	660	40	70
	KPT1608NW	Orange	610	5	12.5
	KPT1608PYW	Yellow	580	3.2	8
	KPT1608QYW	Yellow	565	3.2	12.5
	KPT1608QGW	Green	560	3.2	8
	KPT1608PGW	Pure Gm.	555	0.8	3.2

3.2mm x 1.6mm x 1.05mm (1206 Reverse Angle SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
4	KPTR3216SRWPRV	Red	660	40	70
	KPTR3216NW	Orange	610	5	12.5
	KPTR3216PYW	Yellow	580	3.2	8
	KPTR3216QYW	Yellow	565	3.2	12.5
	KPTR3216QGW	Green	560	3.2	8
	KPTR3216PGW	Pure Gm.	555	0.8	3.2

2.0mm x 1.2mm x 0.75mm (0805 Super Thin SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
2	KPT2012SRWPRV	Red	660	40	70
	KPT2012NW	Orange	610	5	12.5
	KPT2012PYW	Yellow	580	3.2	8
	KPT2012QYW	Yellow	565	3.2	12.5
	KPT2012QGW	Green	560	3.2	8
	KPT2012PGW	Pure Gm.	555	0.8	3.2

3.0mm x 1.5mm x 1.1mm (1106 SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
5	KP3015SRCPV	Red	660	40	70
	KP3015NC	Orange	610	5	12.5
	KP3015PYC	Yellow	580	3.2	8
	KP3015QYC	Yellow	565	3.2	12.5
	KP3015QGC	Green	560	3.2	8
	KP3015PGC	Pure Gm.	555	0.8	3.2

3.0mm x 1.0mm (1104 Right Angle SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
3	KPA3010SRCPV	Red	660	40	70
	KPA3010NC	Orange	610	5	12.5
	KPA3010PYC	Yellow	580	3.2	8
	KPA3010QYC	Yellow	565	3.2	12.5
	KPA3010QGC	Green	560	3.2	8
	KPA3010PGC	Pure Gm.	555	0.8	3.2

3.0mm x 1.5mm x 1.1mm (1106 SMT LED)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
6	KPL3015SRCPV	Red	660	40	80
	KPL3015NC	Orange	610	5	16
	KPL3015PYC	Yellow	580	3.2	12.5
	KPL3015QYC	Yellow	565	5	16
	KPL3015QGC	Green	560	3.2	8
	KPL3015PGC	Pure Gm.	555	0.8	3.2



SURFACE MOUNT LED LAMPS

Features

3.0mmx2.5mm SMT LED 1.1mm thickness. Bi-color, low power consumption.
Axial leads, right angle leads are also available in subminiature solid state lamps.
3.0mmx2.0mm, 1.4mm high, suitable for compact optoelectronic applications.
Sot-23 package surface mount LED, both single chip and dual chips available.
3.5mmx2.8mm SMT, available in single color and bi-color, ideal for backlighting.

Descriptions

The bright red source color devices are made with Gallium Phosphide red LED.

The super bright green source color devices are made with Gallium Phosphide green LED.

The high efficiency red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange LED.

The yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide yellow LED.

The super bright red source color devices are made with Gallium Aluminium Arsenide red LED.

The super bright yellow source color device are made with DH InGaAlP on GaAs substrate LED.

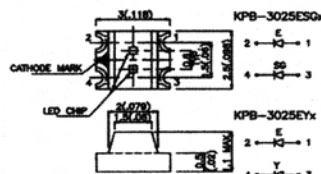


Fig. 7

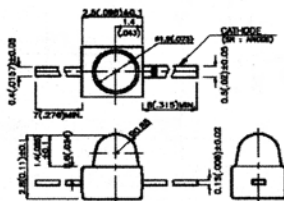


Fig. 8 - Axial Lead

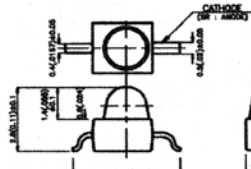


Fig. 9 - Gull Wing Lead

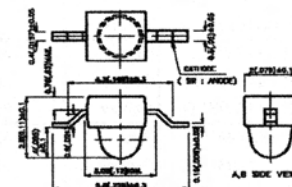


Fig. 10 - Z Bend Lead

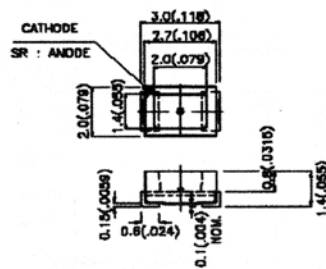


Fig. 11

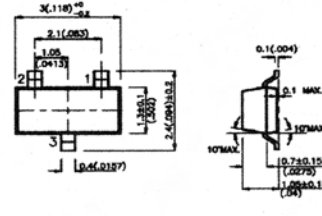


Fig. 12

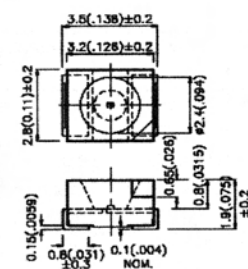


Fig. 13

3.0mm x 2.5mm (1109 Bi-Color)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
7	KPB3025ESGC	Red/Gm.	625/565	5/3.2	12.5/12.5
	KPB3025ESGW	Red/Gm.	625/565	5/3.2	12.5/12.5
	KPB3025EYC	Red/Yel.	625/590	5/3.2	12.5/8
	KPB3025EYW	Red/Yel.	625/590	5/3.2	12.5/8
	KPB3025SGYC	Gm./Yel.	565/590	3.2/3.2	12.5/8

3.0mm x 2.0mm SMT LED Lamps

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
11	KA3020EC	Red	625	8	60
	KA3020SGC	Green	565	8	40
	KA3020YC	Yellow	590	8	40
	KA3020SRC	Red	660	70	300
	KA3020SYC	Yellow	595	100	200

Subminiature Solid State Lamps (Axial Leads)

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
8	KM2520A01EC001	Red	625	20	100
	KM2520A01SGC001	Green	565	50	150
	KM2520A01YC001	Yellow	590	20	70
	KM2520A01SRC001	Red	660	200	1000
	KM2520A01SYC001	Yellow	595	700	1300
9	KM2520A01EC003	Red	625	20	100
	KM2520A01SGC003	Green	565	50	150
	KM2520A01YC003	Yellow	590	20	70
	KM2520A01SRC003	Red	660	200	1000
	KM2520A01SYC003	Yellow	595	700	1300
10	KM2520A01EC009	Red	625	20	100
	KM2520A01SGC009	Green	565	50	150
	KM2520A01YC009	Yellow	590	20	70
	KM2520A01SRC009	Red	660	200	1000
	KM2520A01SRT009	Red	660	200	1000
	KM2520A01SYC009	Yellow	595	700	1300

3mm x 1.3mm SOT- 23 SMT LED Lamps

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
12	KM23EC	Red	625	8	32
	KM23SGC	Green	565	8	32
	KM23YC	Yellow	590	5	12.5
	KM23SRC	Red	660	50	90
	KM23SYC	Yellow	595	40	100
	KM23ESGC	Red/Gm.	625/565	8.0/8.0	32/32

3.5mm x 2.8mm SMT LED

Fig. No.	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @20mA	
				Min.	Max.
13	KA3528EC	Red	625	12.5	40
	KA3528SGC	Green	565	12.5	40
	KA3528YC	Yellow	590	8	20
	KA3528SRC	Red	660	70	300
	KA3528SYC	Yellow	595	40	100

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P I L O T L I G H T S & I N D I C A T O R S

CIRCUIT BOARD INDICATORS
3mm Single Level, Bi-Level, Tri-Level, and Quad-Level

Shape	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @10mA	
				Min.	Max.
	L934CB/ID	Red	625	8	50
	L934CB/GD	Green	565	8	32
	L934CB/YD	Yellow	590	8	32
	L934EB/2ID	Red	625	8	50
	L934EB/2GD	Green	565	8	32
	L934EB/2YD	Yellow	590	8	32
	L934BY/3ID	Red	625	8	50
	L934BY/3GD	Green	565	8	32
	L934BY/3YD	Yellow	595	8	32
	L96XDM/4ID	Red	625	8	50
	L96XDM/4GD	Green	565	8	32
	L96XDM/4YD	Yellow	590	8	32

5mm Single Level, Bi-Level, Array Indicators

Shape	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @10mA	
				Min.	Max.
	L1503CB/ID	Red	625	12.5	8
	L1503CB/GD	Green	565	5	32
	L1503CB/YD	Yellow	590	5	32
	L73HB/IDA	Red	625	8	32
	L73HB/GDA	Green	565	5	32
	L73HB/YDA	Yellow	590	5	32
	L1503EB/2ID	Red	625	12.5	80
	L1503EB/2GD	Green	565	5	32
	L1503EB/2YD	Yellow	595	5	32
	L73CB/3IDA	Red	625	8	32
	L73CB/3GDA	Green	565	5	32
	L73CB/3YDA	Yellow	590	5	32

SUPERBRIGHT ROUND LED LAMPS

Shape	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @10mA	
				Min.	Max.
	L1060HD	Red	700	0.5	3.2
	L1060ID	Red	625	8	32
	L1060ED	Red	625	8	32
	L1060GD	Green	565	5	20
	L1060YD	Yellow	590	3.2	20
	L934ID	Red	625	8	50
	L934EC	Red	625	20	125
	L934GD	Green	565	8	32
	L934GC	Green	565	20	80
	L934YD	Yellow	590	8	32
	L934YC	Yellow	590	10	50
	L934SGC	Green	565	100*	300*
	L934SYC	Yellow	595	200*	1300*
	L934SRC/C	Red	660	360*	500*
	L934SRC/G	Red	660	1200*	1400*
	L934SRC/J	Red	660	1800*	2500*
	L132XID	Red	625	8	50
	L132XIT	Red	625	20	125
	L132XGD	Green	565	8	32
	L132XGT	Green	565	20	80
	L132XYD	Yellow	590	8	32
	L132XYT	Yellow	590	10	50
	L53ID	Red	625	12.5	80
	L53GD	Green	565	5	32
	L53YD	Yellow	590	5	32
	L53SRC/DU	Red	660	1000*	1300*
	L53SRC/E	Red	660	2000*	3500*
	L53SRC/F	Red	660	3500*	4500*

Shape	Kingbright Part No.	Emitted Color	Peak Wave-Length (nm)	Iv (mcd) @10mA	
				Min.	Max.
	L63ID	Red	625	12.5	50
	L63IT	Red	625	32	125
	L63GD	Green	565	5	20
	L63GT	Green	565	20	80
	L63YD	Yellow	590	5	20
	L63YT	Yellow	590	20	80
	L1053HDT	Red	700	0.5	2
	L1053IDT	Red	625	5	12.5
	L1053GDT	Green	565	2	8
	L1053YDT	Yellow	590	2	8
	L113IDT	Red	625	3.2	12.5
	L113GDT	Green	565	2	8
	L113YDT	Yellow	590	2	8
	L113SRDT	Red	660	40*	80*
	L113SRSGWT	Red/Grn	625/565	30*/8*	70*/20*
	L144IDT	Red	625	3.2	20
	L144EDT	Orange	625	3.2	20
	L144GDT	Green	565	2	8
	L144YDT	Yellow	590	2	8
	L144SRDT	Red	660	40*	70*
	L153IDT	Red	625	3.2	12.5
	L153GDT	Green	565	1.3	8
	L153YDT	Yellow	590	1.3	8
	L153SRDT	Red	660	32*	80*
	L1553IDT	Red	625	3.2	12.5
	L1553GDT	Green	565	1.3	8
	L1553YDT	Yellow	590	1.3	8
	L1553SRDT	Red	660	32*	100*

Note: All intensities with (*) denotes operating current @ 20mA.



BASED LED LAMPS (INCANDESCENT LAMP REPLACEMENT)

Kingbright Part Number	Emitted Color	Peak Wave- Length (nm)	Iv (mcd)		Fig. No.
			Min.	Max.	
BLF041SRC-12V-P	Red	660	400	1600	14
BLF041SYC-12V-P	Yellow	595	400	1600	
BLF051URC-12V-P	Red	660	1500	3000	15
BLF051SYC-12V-P	Yellow	595	400	2000	
BLB101URC-12V-P	Red	660	1500	3000	16
BLB101SYC-12V-P	Yellow	595	700	2500	
BLS101URC-12V-P	Red	660	1500	3000	17
BLS101SYC-12V-P	Yellow	595	700	2500	

Notes:

1. Various colors and lens type are also available.
2. All incandescent lamps replacement are available in 6V, 12V, 24V.

LED DISPLAYS

Shape	Kingbright Part No.	Emitted Color	Peak Wave- Length (nm)	Iv (ucd) @10mA	
				Min.	Max.
10 Seg. 	DC10EWA	Red	625	2200	5600
	DC10GWA	Green	565	2200	5600
	DC10YWA	Yellow	590	2200	5600
	DC10SRWA	Red	660	5600	31000
	DC7G3HWA	Gm/Red	565/700	2200/900	5600/2200
0.3" 	SA03-11EWA	Red	625	2200	9000
	SA03-11GWA	Green	565	1400	5600
	SA03-11YWA	Yellow	590	1400	5600
	SA03-11SRWA	Red	660	5600	14000
0.4" 	SA04-11EWA	Red	625	2200	9000
	SA04-11GWA	Green	565	9000	21000
	SA04-11YWA	Yellow	590	1400	5600
	SA04-11SRWA	Red	660	9000	30000
0.56" 	SA56-21EWA	Red	625	2200	5600
	SA56-21GWA	Green	565	5600	14000
	SA56-21YWA	Yellow	590	2200	5600
	SA56-21SRWA	Red	660	5600	21000
1.0" 	SA10-21EWA	Red	625	5600	14000
	SA10-21GWA	Green	565	9000	22000
	SA10-21YWA	Yellow	590	3600	9000
	SA10-21SRWA	Red	660	14000	31000
0.4" 	DA04-11EWA	Red	625	2200	5600
	DA04-11GWA	Green	565	2200	3600
	DA04-11YWA	Yellow	590	2200	5600
	DA04-11SRWA	Red	660	3600	9000
0.56" 	DA56-11EWA	Red	625	2200	5600
	DA56-11GWA	Green	565	2200	5600
	DA56-11YWA	Yellow	590	2200	5600
	DA56-11SRWA	Red	660	5600	21000

Notes:

1. All displays are available in both common anode and common cathode.
2. Bi-color, other face color and various dimensions are also available.

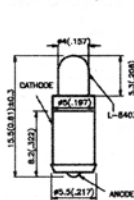


Fig. 14

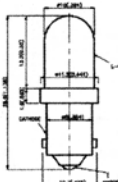


Fig. 16

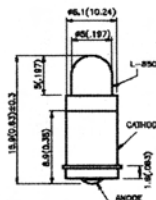


Fig. 15

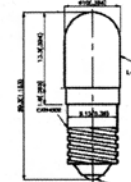


Fig. 17

Shape	Kingbright Part No.	Emitted Color	Peak Wave- Length (nm)	Iv (ucd) @10mA	
				Min.	Max.
0.56" 	BA56-11EWA	Red	625	2200	9000
	BA56-11GWA	Green	565	3600	5600
	BA56-11YWA	Yellow	590	2200	5600
	BA56-11SRWA	Red	660	5600	21000
0.5" 	PSA05-11EWA	Red	625	2200	5600
	PSA05-11GWA	Green	565	2200	5600
	PSA05-11YWA	Yellow	590	2200	5600
	PSA05-11SRWA	Red	660	5600	21000
0.54" 	PDA54-11EWA	Red	625	1400	5600
	PDA54-11GWA	Green	565	1400	3600
	PDA54-11YWA	Yellow	590	1400	3600
	PDA54-11SRWA	Red	660	3600	14000
0.7" 5x7 	TA07-11EWA	Red	625	2200	5600
	TA07-11GWA	Green	565	2200	5600
	TA07-11YWA	Yellow	590	2200	5600
	TA07-11SRWA	Red	660	5600	14000
1.2" 8x8 	TA12-11EWA	Red	625	3600	9000
	TA12-11GWA	Green	565	2200	5600
	TA12-11YWA	Yellow	590	2200	5600
	TA12-11SRWA	Red	660	5600	14000
1.5" 8x8 	TA15-11EWA	Red	625	3600	9000
	TA15-11GWA	Green	565	2200	5600
	TA15-11YWA	Yellow	590	2200	5600
	TA15-11SRWA	Red	660	5600	14000
2.0" 5x7 	TA20-11EWA	Red	625	3600	9000
	TA20-11GWA	Green	565	2200	5600
	TA20-11YWA	Yellow	590	2200	5600
	TA20-11SRWA	Red	660	9000	31000
2.3" 8x8 	TA23-11EWA	Red	625	3600	9000
	TA23-11GWA	Green	565	2200	5600
	TA23-11YWA	Yellow	590	2200	5600
	TA23-11SRWA	Red	660	14000	31000

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