

Legal and additional information.

About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies, redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, printers, medical equipment, network systems and semiconductors.

We are also leading in the Internet of Things space through, among others, our Digital Health and Smart Home initiatives. We employ 307,000 people across 84 countries. To discover more, please visit our official website at www.samsung.com and our official blog at global.samsungtomorrow.com.

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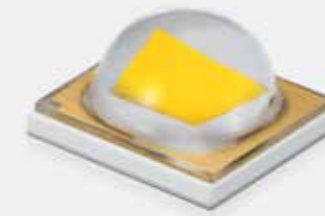
www.samsungled.com

SAMSUNG

Rev.4.0 Sep.2015

Samsung LED Component

The best solution for luminaires



SAMSUNG

Overview & Technology

Samsung Electronics Co., Ltd. is a global leader in consumer electronics and the core components that go into them.

Overview

Samsung's global network extends across the world where the creativity, expertise and diverse perspectives of employees are helping to drive growth.

* As of Dec. 31, 2014. Figures include domestic and overseas facilities.

Manufacturing Sites	33
R&D Centers	29
Design Centers	5
Regional Headquarters	14

84 Countries

Brand Value

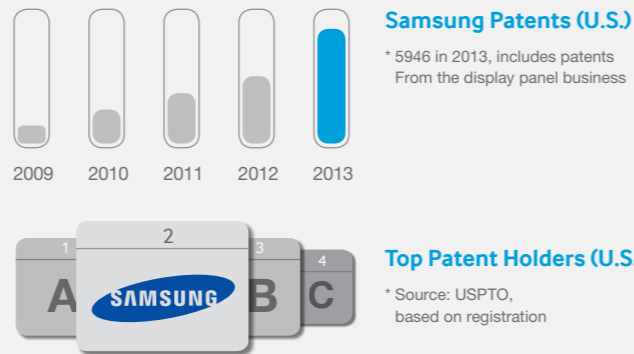
Ranked 7th Among the top 10 global brands, Samsung recorded a brand value of \$45.5 Billion in 2014, a 94% increase compared to 2011 \$23.4 billion.

* Source : Interbrand / Business Week

Rank	Company	Rank	Company	Rank	Company	Rank	Company
1	Coca-Cola	1	Coca-Cola	1	Coca-Cola	5	Microsoft
2	Microsoft	2	IBM	2	Apple	6	GE
3	IBM	3	Apple	3	IBM	7	Samsung Electronics
4	GE	4	Google	4	Google	8	Toyota
...	...	...	...	...	...	9	McDonald's
21	Samsung Electronics	10	Samsung Electronics	7	Samsung Electronics	...	...
25	Sony	29	Sony	25	Nike	...	...
29	Nike	30	Starbucks	41	Philips	...	...
88	Starbucks	...	...	...	...	...	...

Intellectual Property

In 2013, Samsung registered 5,946 new patents at the U.S. Patent & Trade Office. This placed it as the second-highest U.S. patent winner, a position it has held for the past six consecutive years.



Samsung aspires to create new technologies and innovative products that inspire the world, while delivering new value to enhance the lives of customers, partners and employees.

Vertical Integration

Unique company that has full in-house solutions from raw material to Light Engines and Smart Lighting Platform



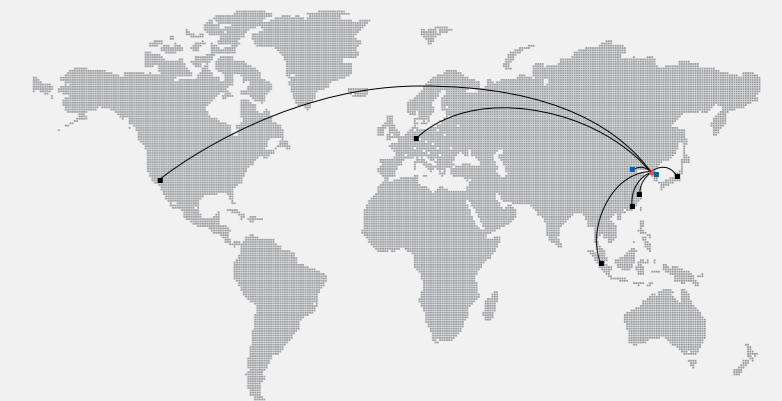
High Reliability

Quality management & design verification system for optimizing time-to-market

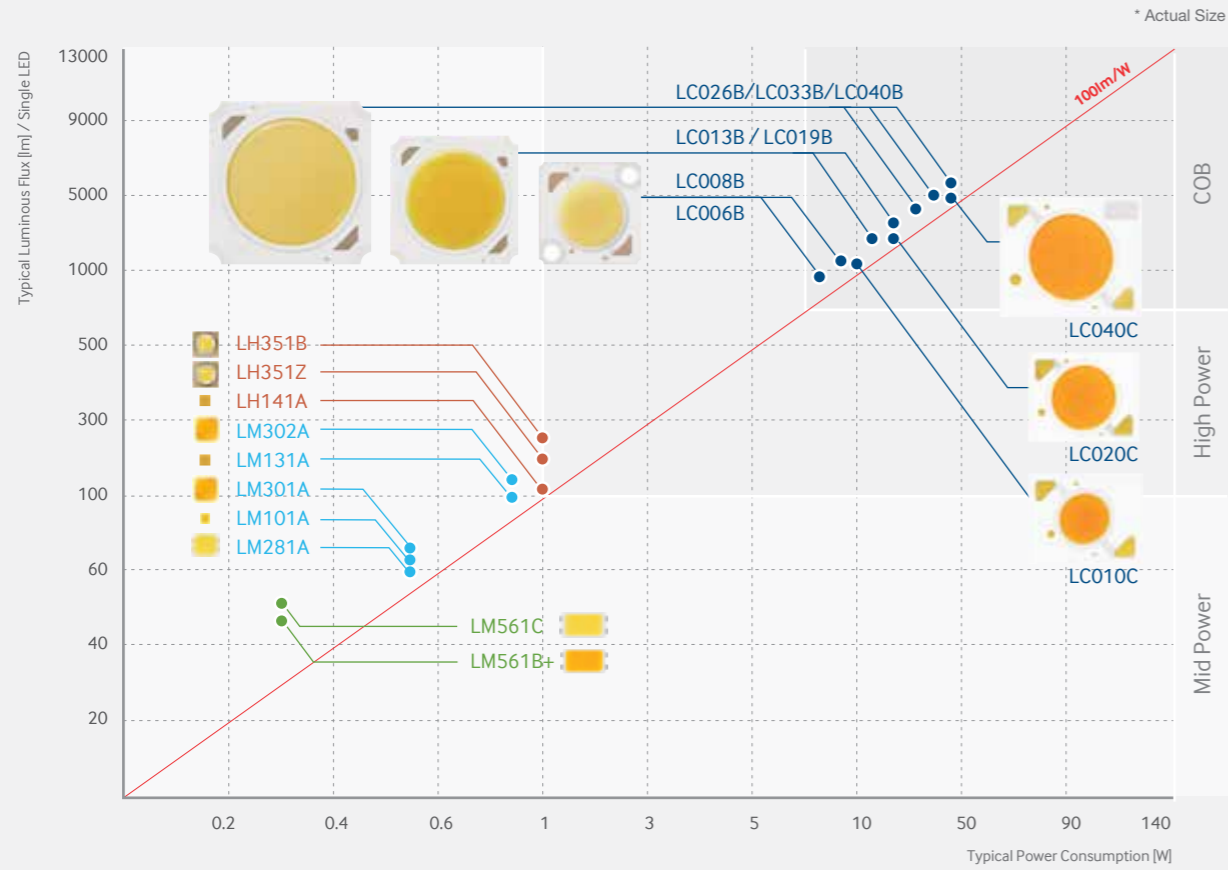


World Best SCM

World best SCM
Reliable, on-time delivery without delays



Samsung LED Line-up for illumination



Mid Power LED (0.3W)

- High efficacy
- Replacement for fluorescent lamps
- LED Tube, Ambient Light

High Power LED

- Ultra High Flux
- Provides excellent color consistency
- Spotlight, Street Light

Mid Power LED (~1W)

- High flux & better lm/\$
- Replacement for incandescent lamps
- Retrofit Bulb, MR/PAR, Downlight

COB

- Chip on Board solution
- Outstanding color rendering & consistency
- Spotlight, High Bay & Low Bay Light



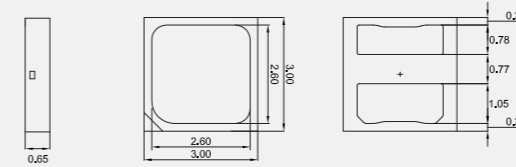
Mid Power LEDs

LM301A



Designed for best lm/\$, high bay & down light

- Mid-high power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm

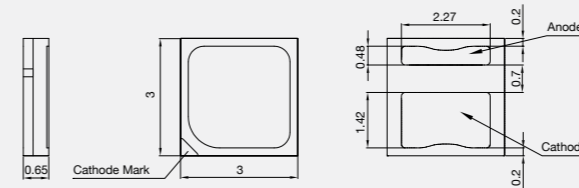


LM302A

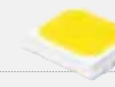


Designed for better lm/\$, lamps & down lights

- 1W class mid-high power LED
- EMC resin for high reliability
- Standard footprint: 3.0mm x 3.0mm

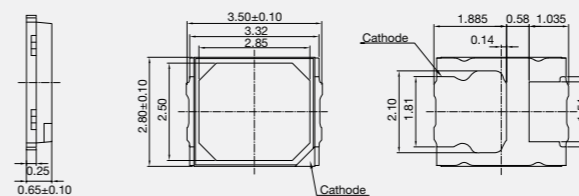


LM281A



Designed for better lm/\$, lamps, downlights and ambient lights

- 0.5W class mid power LED
- PCT Resin for high reliability
- Standard footprint: 2.8mm x 3.5mm



CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	51.0	63.0	150	SPMWHT328QD5WAW0S0
	3000	54.0	66.0		SPMWHT328QD5WAV0S0
	3500	55.0	67.0		SPMWHT328QD5WAW0S0
	4000	56.0	68.0		SPMWHT328QD5WAT0S0
	5000	58.0	70.0		SPMWHT328QD5WAR0S0
	5700	57.0	69.0		SPMWHT328QD5WAQ0S0
	6500	56.0	68.0		SPMWHT328QD5WAP0S0

※ Bin option is available, please refer to data sheet for more details.

CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	102.0	126.0	150	SPMWHT327FD5GBW0S0
	3000	104.0	128.0		SPMWHT327FD5GBV0S0
	3500	107.0	131.0		SPMWHT327FD5GBU0S0
	4000	109.0	133.0		SPMWHT327FD5GBT0S0
	5000	113.0	137.0		SPMWHT327FD5GBR0S0
	5700	111.0	135.0		SPMWHT327FD5GBQ0S0
	6500	109.0	133.0		SPMWHT327FD5GBP0S0
70	3000	112.0	128.0		SPMWHT327FD3GBV0S0
	4000	117.0	133.0		SPMWHT327FD3GBT0S0
	5000	121.0	137.0		SPMWHT327FD3GBR0S0
	5700	119.0	135.0		SPMWHT327FD3GBQ0S0

※ Bin option is available, please refer to data sheet for more details.

CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	51.0	61.5	150	SPMWHT228FD5BAW0S0
	3000	52.0	62.5		SPMWHT228FD5BAV0S0
	3500	53.0	63.5		SPMWHT228FD5BAU0S0
	4000	55.5	66.0		SPMWHT228FD5BAT0S0
	5000	57.5	68.0		SPMWHT228FD5BAR0S0
	5700	56.5	67.0		SPMWHT228FD5BAQ0S0
	6500	55.5	66.0		SPMWHT228FD5BAP0S0

※ Bin option is available, please refer to data sheet for more details.



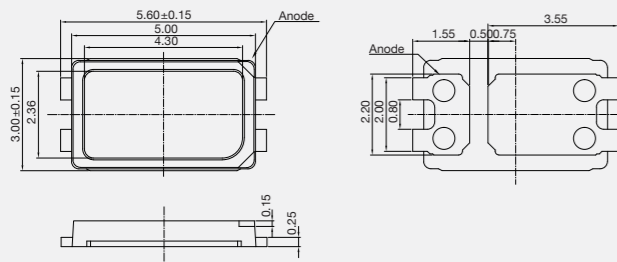
Mid Power LEDs

LM561B Plus



Improved efficacy and performance of LM561B to provide better solution

- 0.3W class mid power LED
- High efficacy for distributed light
- Standard footprint: 5.6mm x 3.0mm



CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	30.0	32.0	65	SPMWHT541MP5WAW0S0
	3000	30.5	32.5		SPMWHT541MP5WAV0S0
	3500	31.0	33.0		SPMWHT541MP5WU0S0
	4000	32.0	34.0		SPMWHT541MP5WAT0S0
	5000	33.0	35.0		SPMWHT541MP5WAR0S0
	5700	32.5	34.5		SPMWHT541MP5WAQ0S0
	6500	32.0	34.0		SPMWHT541MP5WAP0S0

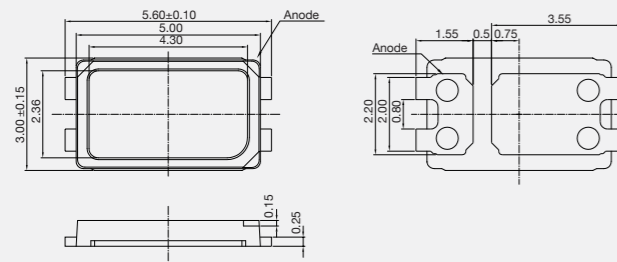
※ Bin option is available, please refer to data sheet for more details.

LM561C



Highest performance, highest lm/W for fluorescent lamp replacement

- 0.3W class mid power LED
- Highest efficacy: 200lm/W @ 65mA, 5000K, 80CRI
- Standard footprint: 5.6mm x 3.0mm



CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	30.0	36.0	65	SPMWHT542MD5XAW0S0
	3000	30.5	36.5		SPMWHT542MD5XAV0S0
	3500	31.0	37.0		SPMWHT542MD5XAU0S0
	4000	32.0	38.0		SPMWHT542MD5XAT0S0
	5000	33.0	39.0		SPMWHT542MD5XAR0S0
	5700	32.5	38.5		SPMWHT542MD5XAQ0S0
	6500	32.0	38.0		SPMWHT542MD5XAP0S0

※ Bin option is available, please refer to data sheet for more details.

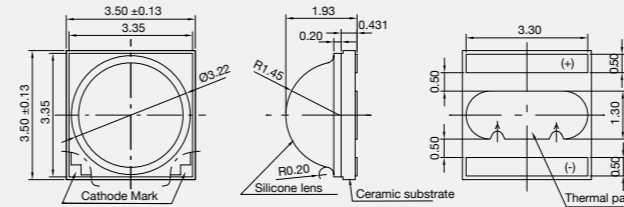
High Power LEDs

LH351B



High performance for outdoor & directional lighting application

- Operates at a maximum current of up to 1.5A
- High efficacy outdoor solution (Delivering set efficacy over 100lm/W@700mA)
- Excellent efficacy : 158lm/W @350mA, 85°C 4000K
- LM80 Certified @ 1A, 105°C (Ts) (L70>60,000 @ 1A, 85°C)
- Footprint: 3.5mm x 3.5mm



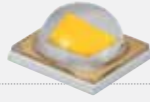
CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
90	2700	90.0	120.0	350	SPHWH2L3D30GD4W0F3
		100.0	130.0		SPHWH2L3D30GD4W0G3
	3000	90.0	120.0		SPHWH2L3D30GD4V0F3
		100.0	130.0		SPHWH2L3D30GD4V0G3
	3500	100.0	130.0		SPHWH2L3D30GD4U0G3
		110.0	140.0		SPHWH2L3D30GD4U0H3
80	2700	100.0	130.0	350	SPHWH2L3D30ED4W0G3
		110.0	140.0		SPHWH2L3D30ED4W0H3
	3000	120.0	150.0		SPHWH2L3D30ED4V0J3
		110.0	140.0		SPHWH2L3D30ED4V0H3
	3500	120.0	150.0		SPHWH2L3D30ED4V0K3
		130.0	160.0		SPHWH2L3D30ED4U0J3
75	4000	120.0	150.0	350	SPHWH2L3D30ED4T0J3
		130.0	160.0		SPHWH2L3D30ED4T0K3
	5000	130.0	160.0		SPHWH2L3D30ED4RTK3
		140.0	170.0		SPHWH2L3D30ED4RTM3
	5700	140.0	170.0		SPHWH2L3D30DD4RTM3
		120.0	150.0		SPHWH2L3D30DD4QTM3
70	3000	120.0	150.0	350	SPHWH2L3D30CD4V0J3
		130.0	160.0		SPHWH2L3D30CD4V0K3
	4000	130.0	160.0		SPHWH2L3D30CD4T0K3
		140.0	170.0		SPHWH2L3D30CD4T0M3
	5000	150.0	180.0		SPHWH2L3D30CD4T0N3
		130.0	160.0		SPHWH2L3D30CD4RTK3
6500	5000	140.0	170.0	350	SPHWH2L3D30CD4RTM3
		150.0	180.0		SPHWH2L3D30CD4RTN3
	5700	130.0	160.0		SPHWH2L3D30CD4QTK3
		140.0	170.0		SPHWH2L3D30CD4QTM3
	6500	150.0	180.0		SPHWH2L3D30CD4QTN3
		130.0	160.0		SPHWH2L3D30CD4PTK3
	140.0	170.0	SPHWH2L3D30CD4PTM3		
	150.0	180.0	SPHWH2L3D30CD4PTN3		

※ Bin option is available, please refer to data sheet for more details.



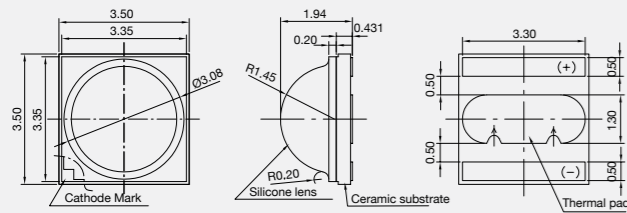
High Power LEDs

LH351Z



Cost effective solution for industrial & directional lighting

- Superior lm/\$ proposition (32% Smaller die than standard 3535 LED)
- Delivering set efficacy over 95lm/W@550mA
- Hot binning @ 85 °C
- UL Recognized Component
- Excellent lifetime (>147Khr @L70, 105°C, 1A)
- Footprint: 3.5mm x 3.5mm



CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	100.0	130.0	350	SPHWHTL3D20EE3W0G3
		110.0	140.0		SPHWHTL3D20EE3W0H3
	3000	100.0	130.0		SPHWHTL3D20EE3V0G3
		110.0	140.0		SPHWHTL3D20EE3V0H3
	3500	100.0	130.0		SPHWHTL3D20EE3U0G3
		110.0	140.0		SPHWHTL3D20EE3U0H3
4000	110.0	140.0	150.0	SPHWHTL3D20EE3T0H3	
		120.0	150.0	SPHWHTL3D20EE3T0J3	
	5000	120.0	150.0	SPHWHTL3D20DE3RTJ3	
		130.0	160.0	SPHWHTL3D20DE3RTK3	
	5700	130.0	160.0	SPHWHTL3D20DE3QTK3	
		140.0	170.0	SPHWHTL3D20CE3T0K3	
70	4000	140.0	170.0	SPHWHTL3D20CE3T0M3	
		130.0	160.0	SPHWHTL3D20CE3RTK3	
	5000	140.0	170.0	SPHWHTL3D20CE3RTM3	
		130.0	160.0	SPHWHTL3D20CE3QTK3	
	5700	140.0	170.0	SPHWHTL3D20CE3QTM3	
		130.0	160.0	SPHWHTL3D20CE3PTK3	
6500	140.0	170.0	SPHWHTL3D20CE3PTM3		

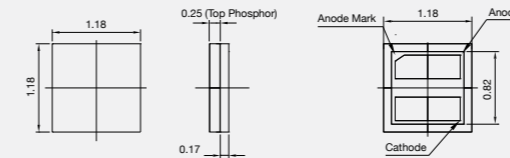
※ Bin option is available, please refer to data sheet for more details.

CSP

LM101A

Compact form factor for design flexibility

- 1W class mid power LED
- Phosphor on Chip structure
- Compact footprint: 1.18mm x 1.18mm



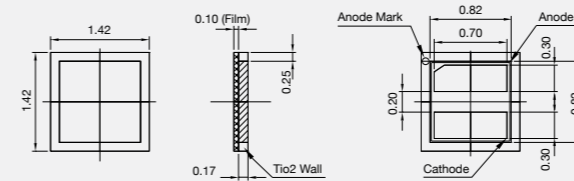
CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	49.0	61.0	150	SCS8WT78EFL2W0S0XX
		3000	51.0		63.0	SCS8VT78EFL2V0S0XX
	4000	56.0	68.0		SCS8TT78EFL2T0S0XX
		5000	58.0		70.0	SCS8RT78EFL2R0S0XX
	5700	53.0	65.0		SCS8QT78EFL2Q0S0XX
		6500	52.0		64.0	SCS8PT78EFL2P0S0XX

※ Bin option is available, please refer to data sheet for more details.

LM131A

Compact form factor for design flexibility

- 1W class mid power LED
- Film on Chip structure
- Compact footprint: 1.42mm x 1.42mm



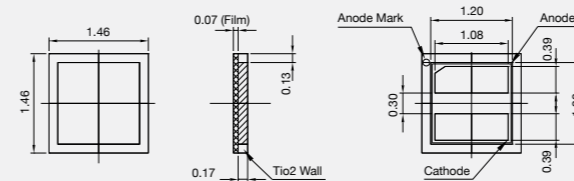
CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Max.		
80	2700	82.0	106.0	300	SCS8WT78EFL1W08ECK
		3000	86.0		110.0	SCS8VT78EFL1V09FCK
	4000	94.0	118.0		SCS8TT78EFL1T0BHCK
		5000	98.0		122.0	SCS8RT78EFL1R0CICK
	5700	94.0	118.0		SCS8PT78EFL1P0BHCK
		6500	94.0		118.0	SCS8PT78EFL1P0BHCK

※ Bin option is available, please refer to data sheet for more details.

LH141A

Samsung flip chip provides optimized solution for torch / flash light

- 2W class high power LED
- Film on Chip structure
- Plastic-free structure delivers low thermal resistance
- Compact footprint: 1.46mm x 1.46mm



CRI Min.	CCT (K)	Luminous Flux (lm)		IF (mA)	Part Number
		Min.	Typ.		
68	5000	110.0	135.0	350	SCS6RTB6EFL1R0FZ6K
	6000	110.0	131.0		SCS6JTB6EFL1J0FZ6K
	7600	110.0	124.0		SCS6NTB6EFL1N0FZ6K

※ Bin option is available, please refer to data sheet for more details.



COB LEDs

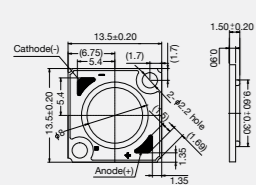
LC Series

High efficacy COB LED package with High performance, well-suited for use in spotlight applications

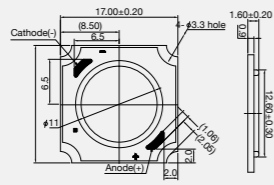
- Chip on Board (COB) solution makes it easy to design in
- Simple assembly reduces manufacturing cost
- Low thermal resistance
- InGaN/GaN MQW LED with long time reliability
- Completed 6,000 hours of LM-80 testing



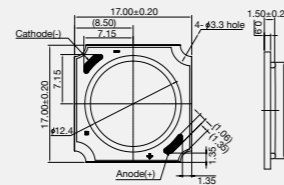
	LC006B	LC008B	LC013B	LC019B	LC026B	LC033B	LC040B	LC010C	LC020C	LC040C
LES	8 mm		11 mm	12.4 mm	17 mm			6 mm	8 mm	11 mm
Typical	35.5 V	36.0 V	35.5 V			34.5 V @ 85°C				
	6.4 W (180 mA)	8.6 W (240 mA)	12.8 W (360 mA)	19.2 W (540 mA)	25.6 W (720 mA)	32 W (900 mA)	38.3 W (1080 mA)	9.3 W (270 mA)	18.6 W (540 mA)	37.3 W (1080 mA)
Max.	12.2 W (320 mA)	15.8 W (430 mA)	24.4 W (660 mA)	36.3 W (980 mA)	48.1 W (1300 mA)	59.9 W (1620 mA)	70.3 W (1900 mA)	14.0 W (405 mA)	28.0 W (810 mA)	56.0 W (1620 mA)
Size	13.5 x 13.5 mm		17.0 x 17.0 mm		21.5 x 21.5 mm			12.0 x 15.0 mm		16.0 x 19.0 mm



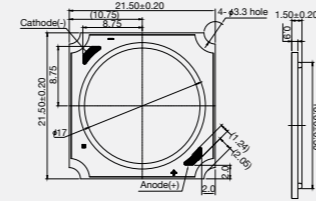
LC006B / LC008B



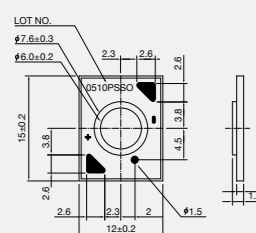
LC013B



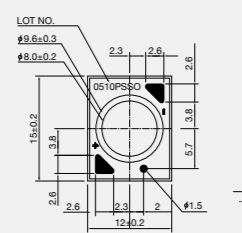
LC019B



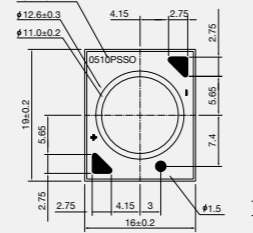
LC026B / LC033B / LC040B



LC010C



LC020C



LC040C



Product	CRI Min.	CCT (K)	Tc = 25°C		Tc = 85°C		IF (mA)	Part Number
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC006B	Vivid	3000	805	126	733	119	180	SPHWW1HDN82VYHV3CF
		3500	821	129	747	122		SPHWW1HDN82VYHU3CF
		4000	829	130	755	123		SPHWW1HDN82VYHT3CF
	95	2700	688	108	626	102		SPHWW1HDN828YHW3CC
		3000	709	111	645	105		SPHWW1HDN828YHV3CC
		3500	731	114	665	108		SPHWW1HDN828YHU3CC
	90	2700	773	121	703	115		SPHWW1HDN827YHW3CF
		3000	805	126	733	119		SPHWW1HDN827YHV3CF
		3500	821	129	747	122		SPHWW1HDN827YHU3CF
	80	4000	829	130	755	123		SPHWW1HDN827YHT3CF
2700		920	144	837	137	SPHWW1HDN825YHW3ED		
3000		959	150	872	142	SPHWW1HDN825YHV3ED		
3500		978	153	890	145	SPHWW1HDN825YHU3ED		
4000		997	156	907	148	SPHWW1HDN825YHT3ED		
5000		987	155	898	146	SPHCW1HDN825YHRTED		
5700		987	155	898	146	SPHCW1HDN825YHQTED		
70	3000	987	155	889	145	SPHWW1HDN823YHVTGE		
	4000	1,037	162	933	152	SPHWW1HDN823YHTTGE		
	5000	1,046	164	942	154	SPHCW1HDN823YHRTGE		
Vivid	3000	1,104	126	1,004	119	240	SPHWW1HDN94VYHV3FG	
	3500	1,126	129	1,025	122		SPHWW1HDN94VYHU3FG	
	4000	1,137	130	1,035	123		SPHWW1HDN94VYHT3FG	
95	2700	943	108	858	102	SPHWW1HDN948YHW3EC		
	3000	972	111	885	105	SPHWW1HDN948YHV3EC		
	3500	1,002	114	911	108	SPHWW1HDN948YHU3EC		
90	2700	1,060	121	964	115	SPHWW1HDN947YHW3FG		
	3000	1,104	126	1,004	119	SPHWW1HDN947YHV3FG		
	3500	1,126	129	1,025	122	SPHWW1HDN947YHU3FG		
80	4000	1,137	130	1,035	123	SPHWW1HDN947YHT3FG		
	2700	1,261	144	1,148	137	SPHWW1HDN945YHW3KG		
	3000	1,314	150	1,196	142	SPHWW1HDN945YHV3KG		
70	3500	1,340	153	1,220	145	SPHWW1HDN945YHU3KG		
	4000	1,367	156	1,244	148	SPHWW1HDN945YHT3KG		
	5000	1,353	155	1,232	146	SPHCW1HDN945YHRTKG		
5700	1,353	155	1,232	146	SPHCW1HDN945YHQTKG			
	3000	1,353	155	1,218	145	SPHWW1HDN943YHVTMG		
	4000	1,421	162	1,279	152	SPHWW1HDN943YHTTGM		
5000	1,435	164	1,291	154	SPHCW1HDN943YHRTMG			

※ Bin option is available, please refer to data sheet for more details.



COB LEDs

Product	CRI Min.	CCT (K)	Tc = 25°C		Tc = 85°C		IF (mA)	Part Number
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)		
LC013B	Vivid	3000	1,610	126	1,465	119	360	SPHWW1HDNA2VYHV31F
		3500	1,642	129	1,495	122		SPHWW1HDNA2VYHU31F
		4000	1,659	130	1,509	123		SPHWW1HDNA2VYHT31F
	95	2700	1,376	108	1,252	102		SPHWW1HDNA28YHW31E
		3000	1,419	111	1,291	105		SPHWW1HDNA28YHV31E
		3500	1,461	114	1,330	108		SPHWW1HDNA28YHU31E
	90	2700	1,546	121	1,407	115		SPHWW1HDNA27YHW31F
		3000	1,610	126	1,465	119		SPHWW1HDNA27YHV31F
		3500	1,642	129	1,495	122		SPHWW1HDNA27YHU31F
	80	4000	1,659	130	1,509	123		SPHWW1HDNA27YHT31F
		2700	1,840	144	1,675	137		SPHWW1HDNA25YHW31D
		3000	1,917	150	1,744	142		SPHWW1HDNA25YHV31D
		3500	1,955	153	1,779	145		SPHWW1HDNA25YHU31D
		4000	1,994	156	1,815	148		SPHWW1HDNA25YHT31D
5000		1,975	155	1,797	146	SPHCW1HDNA25YHRT1D		
5700		1,975	155	1,797	146	SPHCW1HDNA25YHQT1D		
70	3000	1,975	155	1,777	145	SPHWW1HDNA23YHVT1F		
	4000	2,073	162	1,866	152	SPHWW1HDNA23YHTT1F		
	5000	2,093	164	1,884	154	SPHCW1HDNA23YHRT1F		
LC019B	Vivid	3000	2,415	126	2,198	119	540	SPHWW1HDNB2VYHV32J
		3500	2,464	129	2,242	122		SPHWW1HDNB2VYHU32J
		4000	2,488	130	2,264	123		SPHWW1HDNB2VYHT32J
	95	2700	2,064	108	1,878	102		SPHWW1HDNB28HW31F
		3000	2,128	111	1,936	105		SPHWW1HDNB28YHV31F
		3500	2,192	114	1,994	108		SPHWW1HDNB28YHU31F
	90	2700	2,319	121	2,110	115		SPHWW1HDNB27YHW32J
		3000	2,415	126	2,198	119		SPHWW1HDNB27YHV32J
		3500	2,464	129	2,242	122		SPHWW1HDNB27YHU32J
	80	4000	2,488	130	2,264	123		SPHWW1HDNB27YHT32J
		2700	2,760	144	2,512	137		SPHWW1HDNB25YHW31G
		3000	2,876	150	2,617	142		SPHWW1HDNB25YHV31G
		3500	2,933	153	2,669	145		SPHWW1HDNB25YHU31G
		4000	2,992	156	2,722	148		SPHWW1HDNB25YHT31G
5000		2,962	155	2,695	146	SPHCW1HDNB25YHRT1G		
5700		2,962	155	2,695	146	SPHCW1HDNB25YHQT1G		
70	3000	2,962	155	2,666	145	SPHWW1HDNB23YHVT2F		
	4000	3,110	162	2,799	152	SPHWW1HDNB23YHTT2F		
	5000	3,139	164	2,826	154	SPHCW1HDNB23YHRT2F		

※ Bin option is available, please refer to data sheet for more details.



Product	CRI Min.	CCT (K)	Tc = 25°C		Tc = 85°C		IF (mA)	Part Number	
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)			
LC026B	Vivid	3000	3,221	126	2,931	119	720	SPHWW1HDNC2VYHV32F	
		3500	3,285	129	2,989	122		SPHWW1HDNC2VYHU32F	
		4000	3,317	130	3,019	123		SPHWW1HDNC2VYHT32F	
	95	2700	2,752	108	2,504	102		SPHWW1HDNC28YHW32F	
		3000	2,837	111	2,582	105		SPHWW1HDNC28YHV32F	
		3500	2,922	114	2,659	108		SPHWW1HDNC28YHU32F	
	90	2700	3,092	121	2,813	115		SPHWW1HDNC27YHW32F	
		3000	3,221	126	2,931	119		SPHWW1HDNC27YHV32F	
		3500	3,285	129	2,989	122		SPHWW1HDNC27YHU32F	
	80	4000	3,317	130	3,019	123		SPHWW1HDNC27YHT32F	
		2700	3,681	144	3,349	137		SPHWW1HDNC25YHW32G	
		3000	3,834	150	3,489	142		SPHWW1HDNC25YHV32G	
		3500	3,911	153	3,559	145		SPHWW1HDNC25YHU32G	
		4000	3,989	156	3,630	148		SPHWW1HDNC25YHT32G	
		5000	3,949	155	3,594	146		SPHCW1HDNC25YHRT2G	
		5700	3,949	155	3,594	146		SPHCW1HDNC25YHQT2G	
	70	3000	3,949	155	3,554	145		SPHWW1HDNC23YHV31F	
		4000	4,146	162	3,737	152		SPHWW1HDNC23YHTT3F	
		5000	4,186	164	3,767	154		SPHCW1HDNC23YHRT3F	
	Vivid	3000	4,026	126	3,663	119		900	SPHWW1HDND2VYHV33P
		3500	4,106	129	3,737	122			SPHWW1HDND2VYHU33P
		4000	4,146	130	3,773	123			SPHWW1HDND2VYHT33P
	95	2700	3,440	108	3,130	102			SPHWW1HDND28YHW33J
		3000	3,546	111	3,227	105			SPHWW1HDND28YHV33J
3500		3,653	114	3,324	108	SPHWW1HDND28YHU33J			
90	2700	3,865	121	3,517	115	SPHWW1HDND27YHW33P			
	3000	4,026	126	3,663	119	SPHWW1HDND27YHV33P			
	3500	4,106	129	3,737	122	SPHWW1HDND27YHU33P			
80	4000	4,146	130	3,773	123	SPHWW1HDND27YHT33P			
	2700	4,601	144	4,187	137	SGHWW1HDND25YHW33G			
	3000	4,793	150	4,361	142	SGHWW1HDND25YHV33G			
	3500	4,888	153	4,448	145	SGHWW1HDND25YHU33G			
	4000	4,986	156	4,537	148	SGHWW1HDND25YHT33G			
	5000	4,936	155	4,492	146	SGHCW1HDND25YHRT3G			
	5700	4,936	155	4,492	146	SGHCW1HDND25YHQT3G			
70	3000	4,936	155	4,443	145	SPHWW1HDND23YHV4P			
	4000	5,183	162	4,665	152	SPHWW1HDND23YHTT4P			
	5000	5,232	164	4,709	154	SPHCW1HDND23YHRT4P			
Vivid	3000	4,831	126	4,396	119	1,080	SPHWW1HDNE2VYHV34J		
	3500	4,927	129	4,484	122		SPHWW1HDNE2VYHU34J		
	4000	4,976	130	4,528	123		SPHWW1HDNE2VYHT34J		
95	2700	4,128	108	3,757	102		SPHWW1HDNE28YHW33M		
	3000	4,256	111	3,873	105		SPHWW1HDNE28YHV33M		
	3500	4,383	114	3,989	108		SPHWW1HDNE28YHU33M		
90	2700	4,638	121	4,220	115		SPHWW1HDNE27YHW34J		
	3000	4,831	126	4,396	119		SPHWW1HDNE27YHV34J		
	3500	4,927	129	4,484	122		SPHWW1HDNE27YHU34J		
80	4000	4,976	130	4,528	123		SPHWW1HDNE27YHT34J		
	2700	5,521	144	5,024	137		SPHWW1HDNE25YHW34G		
	3000	5,751	150	5,233	142		SPHWW1HDNE25YHV34G		
	3500	5,866	153	5,338	145		SPHWW1HDNE25YHU34G		
	4000	5,983	156	5,445	148		SPHWW1HDNE25YHT34G		
	5000	5,924	155	5,390	146		SPHCW1HDNE25YHRT4G		
	5700	5,924	155	5,390	146		SPHCW1HDNE25YHQT4G		
70	3000	5,924	155	5,331	145		SPHWW1HDNE23YHV4J		
	4000	6,220	162	5,598	152		SPHWW1HDNE23YHTT4J		
	5000	6,279	164	5,651	154		SPHCW1HDNE23YHRT5J		

※ Bin option is available, please refer to data sheet for more details.



COB LEDs

Product	CRI Min.	CCT (K)	Tc = 25°C		Tc = 85°C		IF (mA)	Part Number			
			Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)	Luminous Flux Typ. (lm)	Luminous Efficacy Typ. (lm/W)					
LC010C	90	2700	913	98	871	94	270	TBD			
		3000	952	102	908	97					
		3500	971	104	926	99					
		4000	980	105	935	100					
	80	2700	1,087	117	1,037	111					
		3000	1,133	122	1,081	116					
		3500	1,155	124	1,102	118					
		4000	1,179	127	1,124	121					
LC020C	90	5000	1,167	125	1,113	119	540	TBD			
		5700	1,167	125	1,113	119					
		2700	1,732	93	1,653	89					
		3000	1,805	97	1,721	92					
	80	3500	1,841	99	1,756	94					
		4000	1,859	100	1,773	95					
		2700	2,062	111	1,967	106					
		3000	2,148	115	2,049	110					
	LC040C	90	3500	2,191	118	2,090			112	1,080	TBD
			4000	2,235	120	2,132			114		
			5000	2,213	119	2,111			113		
			5700	2,213	119	2,111			113		
80		2700	3,465	93	3,305	89					
		3000	3,609	97	3,443	92					
		3500	3,681	99	3,512	94					
		4000	3,718	100	3,546	95					
80	2700	4,125	111	3,935	106						
	3000	4,297	115	4,099	110						
	3500	4,383	118	4,181	112						
	4000	4,470	120	4,264	114						
80	5000	4,426	119	4,222	113						
	5700	4,426	119	4,222	113						

※ Bin option is available, please refer to data sheet for more details.

Smart, Connected Illumination

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	CRI 95 Min.			CRI 90 Min.				CRI 80 Min.					CRI 70 Min.			
	2700K	3000K	3500K	2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K	5000K	5700K	3000K	4000K	5000K
MacAdam 3-Step	○	○	○	○	○	○	○	○	○	○	○	○	○			
MacAdam 2-Step	○	○	○	○	○	○	○	○	○	○	○					
MacAdam 7-Step (ANSI)													○	○	○	○

