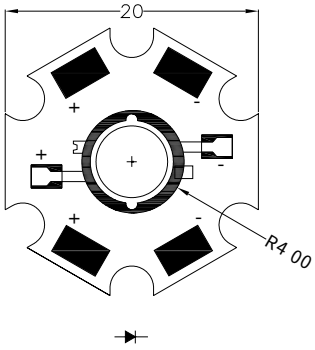
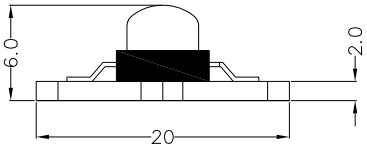




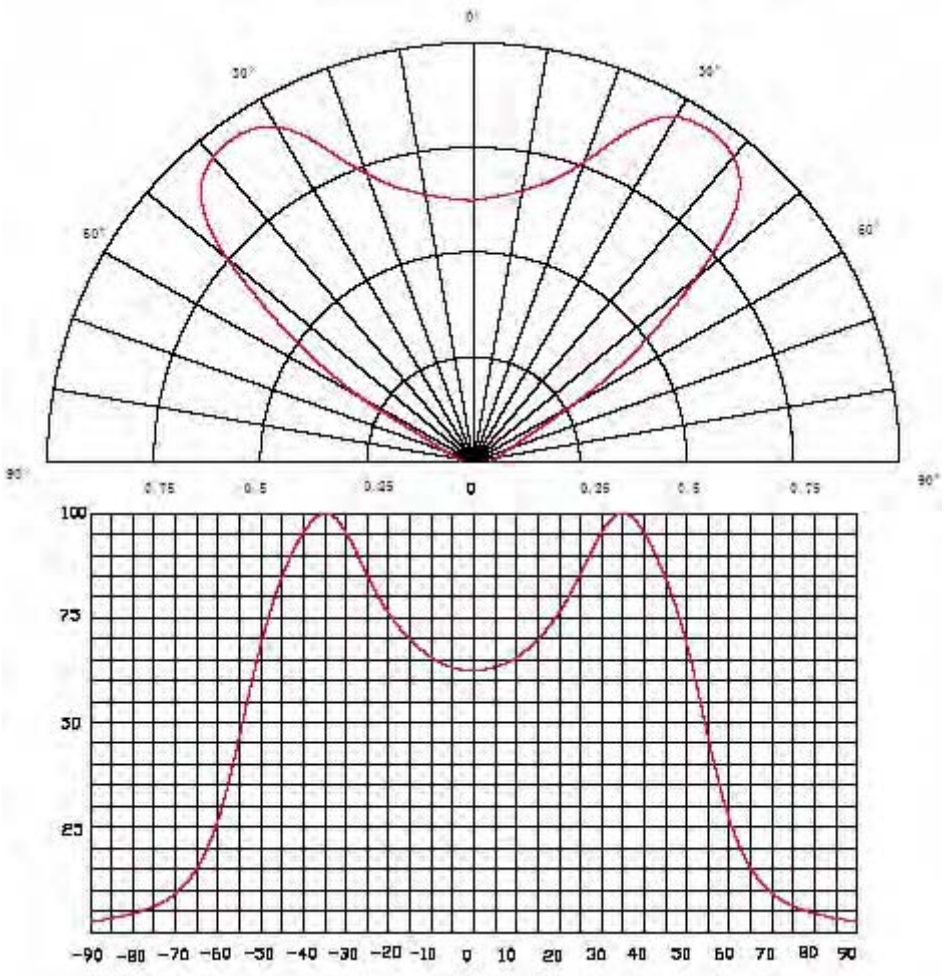
Features:

Compatible with automatic placement equipment

Compatible with reflow solder process
This product doesn't contain restriction Substance, comply ROHS standard.

Applications:

Automotive and Telecommunication



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Flux Characteristics @ 350mA, T_j=25°C

Color	Part Number	Luminous flux Φ V(lm)			Radiation Pattern
		Min.	Typ.	Max.	
White	MCDL-B20-350HPCW-1	70	80	--	Batwing
	MCDL-B20-350HPCW	80	90	--	
Warm White	MCDL-B20-350HPWW	67	86	--	
Red	MCDL-B20-350HPUR	30	40	--	
Yellow	MCDL-B20-350HPUY	30	40	--	
Green	MCDL-B20-350HPPG	60	70	--	
Blue	MCDL-B20-350HPUB-1	15	20	--	
	MCDL-B20-350HPUB	20	25	--	

Notes:

The above listed emitters are our standard series, we welcome special requirement also, you can contact our salesman for more information and serve

Optical Characteristics @ 350mA, T_j=25°C

Color	Part Number	Color Temperature CCT/ λ d			Viewing Angle	Radiation Pattern
		Min.	Typ.	Max.		
White	MCDL-B20-350HPCW-1	5000K	--	7000K	110°	Batwing
	MCDL-B20-350HPCW	5000K	--	7000K	110°	
Warm White	MCDL-B20-350HPWW	2800K	--	4100K	110°	
Red	MCDL-B20-350HPUR	615nm	--	640nm	110°	
Yellow	MCDL-B20-350HPUY	580nm	--	598nm	110°	
Green	MCDL-B20-350HPPG	515nm	--	535nm	110°	
Blue	MCDL-B20-350HPUB-1	455nm	--	480nm	110°	
	MCDL-B20-350HPUB	455nm	--	480nm	110°	

Notes:

The above color range is our standard specification. Actually, we can offer wider color range from 2500K to 25000K. You can contact our salesman for more information and serves.

Electrical Characteristics @ 350Ma,T_j=℃

Color	Part Number	Forward Voltage V_F			Thermal Resistance	Radiation Pattern
		Min.	Typ.	Max.		
White	MCDL-B20-350HPCW-1	3.2	3.6	4.2	13	Batwing
	MCDL-B20-350HPCW	3.0	3.2	3.6	10	
Warm White	MCDL-B20-350HPWW	3.0	3.2	3.6	10	
Red	MCDL-B20-350HPUR	2.8	3.2	3.6	15	
Yellow	MCDL-B20-350HPUY	2.8	3.2	3.6	12	
Green	MCDL-B20-350HPPG	3.4	3.6	3.8	10	
Blue	MCDL-B20-350HPUB-1	3.0	3.2	3.6	10	
	MCDL-B20-350HPUB	3.0	3.2	3.6	10	

Absolute Maximum Ratings

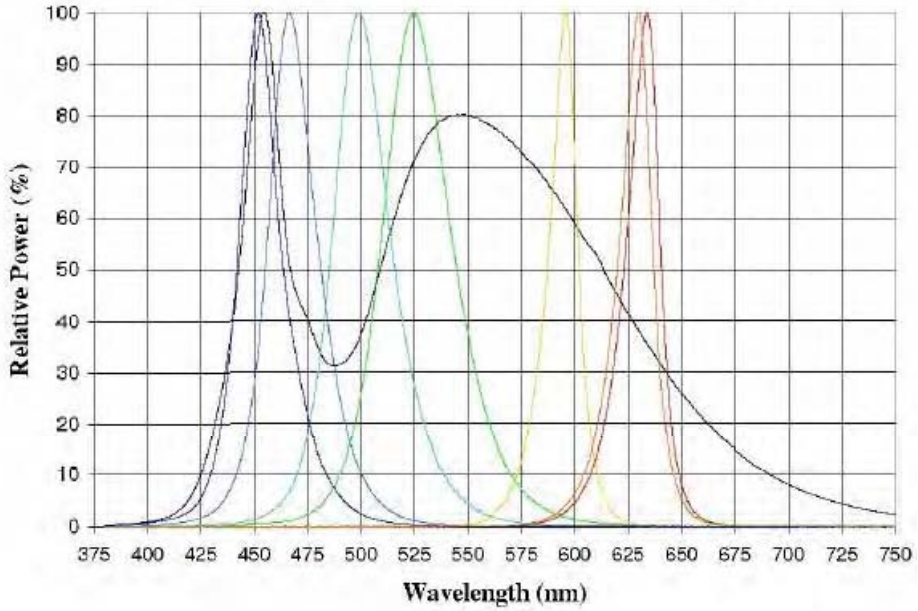
ltem	Symbol	Absolute Maximum Rating	Unit
DC Forward Current	I_F	350	mA
Peak Forward Current*	I_{FP}	500	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	1000	mW
Electrostatic discharge	ESD	±4500	V
Operation Temperature	Topr	-40~+80	℃
Storage Temperature	Tstg	-40~+100	℃
Lead Soldering	Tsol	Max.260℃ for 6 seconds Max.	

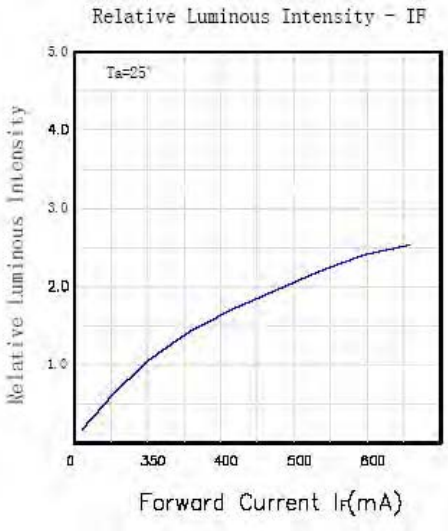
NOTES:* IFP Conditions: pulse Width≤

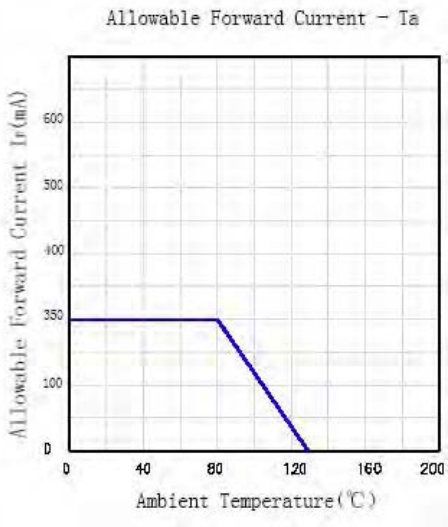
10msec.

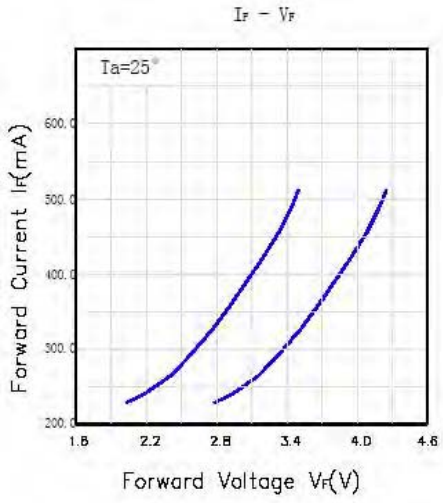
* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.
* The brass column of heat sink of the high power LED is Anode.

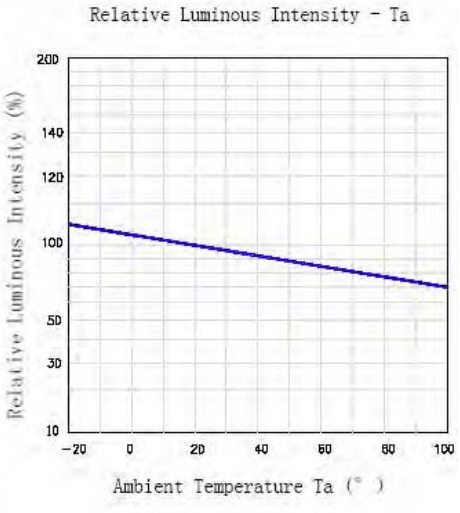
Optical Electrical Characteristics











Cautions

1 Package

When moisture is absorbed into the package it may vaporize and expand during soldering. There is a possibility that this can cause exfoliation of the contacts and damage to the optical characteristics of the LEDs. So the moisture proof package is used to keep moisture to a minimum in the package.

2 Storage

Before opening the package: The LEDs should be kept at 5~30°C and 60%RH or less. The LEDs should be used within a year.

After opening the package: The LED must be used within 24 hours, else should be kept at 5~30°C and 30% RH or less. The LEDs should be used within 7days after opening the package. If unused LEDs remain, they should be stored in moisture proof packages, recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

If the LEDs have exceeded the storage time, baking treatment should be performed more than 12 hours at 60 ± 5°C.

3 The LED electrode sections are comprised of a gold plated. The gold surface may be affected by environments which contain corrosive gases and so on. Please avoid conditions which may cause the LED to corrode or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the User use the LEDs as soon as possible.

4 Please avoid rapid transitions in ambient temperature, especially in high humidity environments where condensation can occur.

5 Static Electricity

5.1 These products are sensitive to static electricity charge, and users are required to handle with care. Particularly, if an current and or voltage which exceeds the Absolute Maximum Rating of Products is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the Products. The customer is requested to take adequate countermeasures against static electricity charge and surge when handling Products.

5.2 Proper grounding of Products , use of conductive mat, conductive working uniform and shoes, and conductive containers are effective against static electricity and surge.

5.3 Ground low-resistance areas where the product contacts, such as metal surfaces of the work platform, with a conductive mat (surface resistance 10^6-$10^8\Omega$).

5.4 A tip of soldering iron is requested to be grounded. An ionizer should also be installed where risk of static generation is high.

■ Notes:

1 Above specification may be changed without notice. We will reserve authority on material change for above specification.

2 When using this product, please observe the absolute maximum ratings and the instructions for the specification sheets. We assume no responsibility for any damage resulting from use of the product which does not comply with the instructions included in the specification sheets.