



Pb-free
HEAT



UW5806X

Φ5 Flush Mount Type White LED

Features

Package	Φ5 Flush Mount Type. Water clear resin
Product features	• Outer Dimension Φ5 Flush Mount Type. • Operation temperature range Storage Temperature : -40℃~100℃ Operating Temperature : -40℃~85℃ • No lead package and lead-free soldering compatible
Chromaticity coordinates	x = 0.31TYP., y = 0.32TYP. (Condition : IF=20mA)
Spatial distribution	20 deg.
Die materials	InGaN
Rank grouping parameter	Sorted by luminous intensity rank and chromaticity rank
Soldering methods	TTW (Through The Wave) soldering and manual soldering
ESD	1kV (HBM
Packing	Bulk : 200pcs(MIN.)

Recommended Applications

Amusement Equipment, Electric Household Appliances, Other General Applications



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φ5 Flush Mount Type White LED

Color and Luminous Intensity

(T_a=25°C)

Part No.	Material	Emitted Color	Lens Color	Luminous Intensity		
				I _v (mcd)		
				MIN.	TYP.	I _F
UW5806X	InGaN	White	Water Clear	2,800	4,800	20

Absolute Maximum Ratings

 (T_a=25℃)

Item	Symbol	Absolute Maximum Ratings	Unit
Power Dissipation	P _d	107	mW
Forward Current	I _F	25	mA
Pulse Forward Current ※1	I _{FRM}	60	mA
Derating (T _a =25℃ or higher)	ΔI _F	0.33	mA/℃
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40~ +85	℃
Storage Temperature	T _{stg}	-40~ +100	℃

 ※1 I_{FRM} Measurement condition : Pulse Width ≦ 1ms., Duty ≦ 1/20.

Electro-Optical Characteristics

 (T_a=25°C)

Item	Condition	Symbol	Characteristics		Unit
Forward Voltage	I _F =20mA	V _F	TYP.	3.7	V
			MAX.	4.2	
Reverse Current	V _R =5V	I _R	MAX.	100	μA
Half Intensity Angle	I _F =20mA	2 θ 1/2	TYP.	20	deg.
Chromaticity Coordinates	I _F =20mA	x	TYP.	0.31	-
		y	TYP.	0.32	-

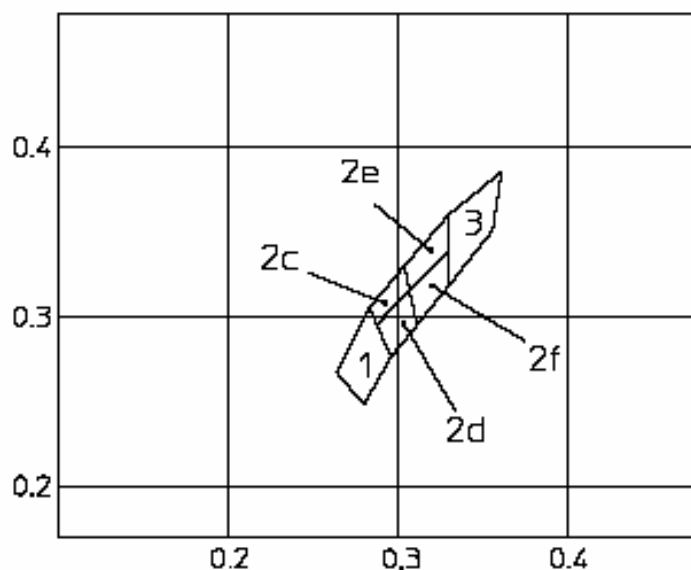
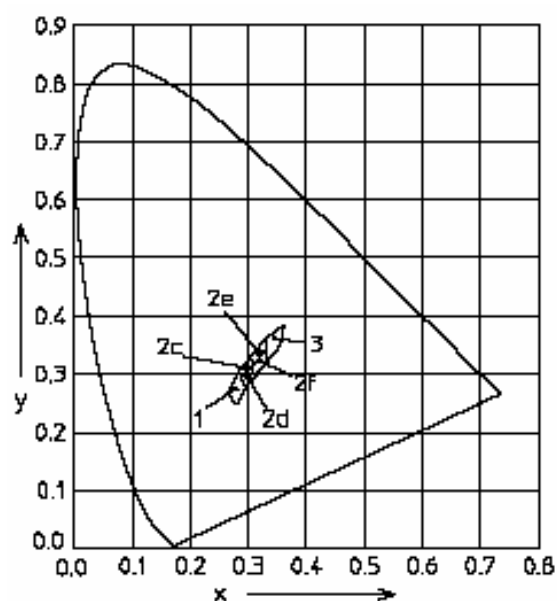
Luminous Intensity Rank

 (T_a=25°C)

Rank	I _v (mcd)		Condition
	MIN.	MAX.	
A	2,800	5,600	I _F =20mA
B	4,000	8,000	
C	5,600	11,200	
D	8,000	16,000	
E	11,200	-	

※Please contact our sales staff concerning rank designation.

Sorting Chart for Chromaticity Coordinates

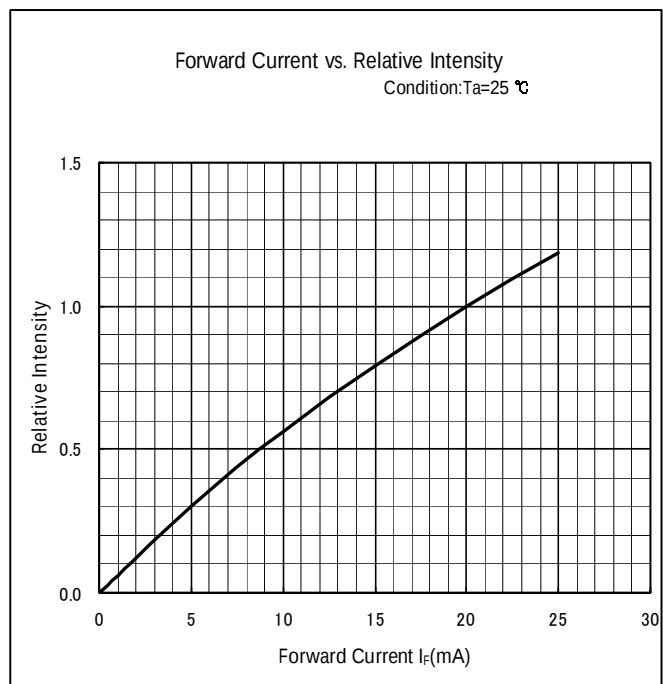
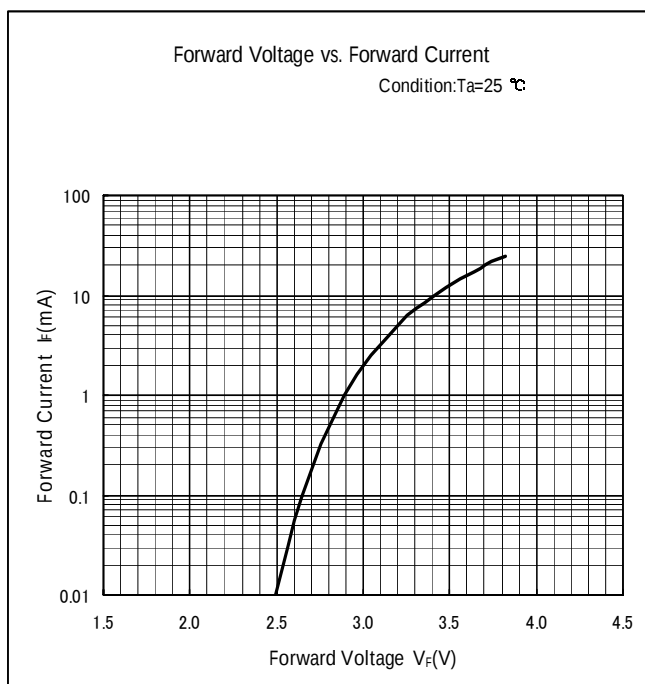
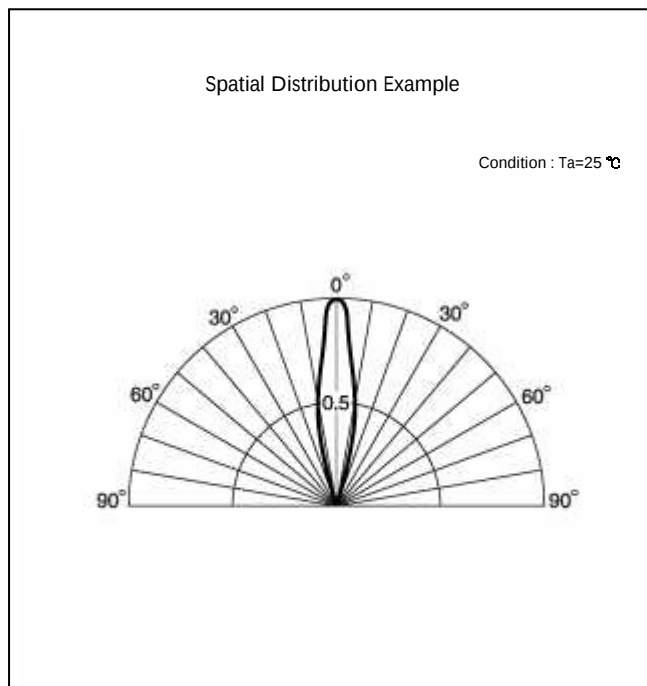
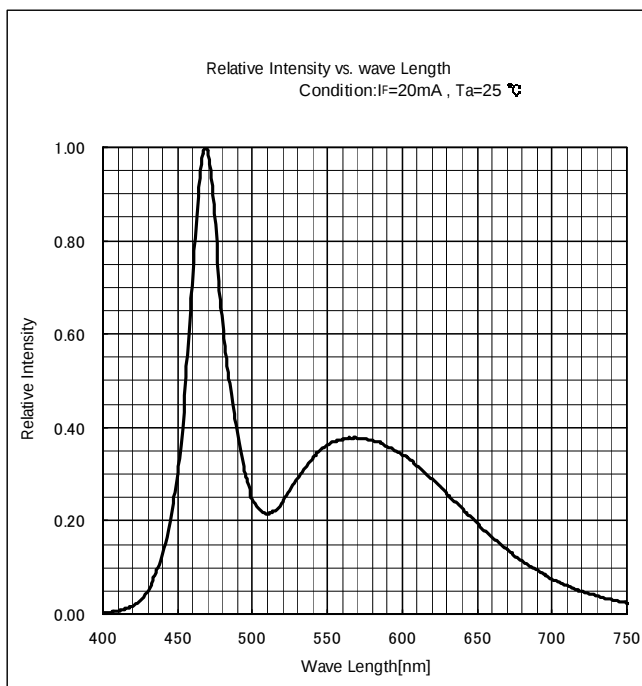


Rank	LEFT DOWN point		LEFT UP point		RIGHT UP point		RIGHT UP point	
	x	y	x	y	x	y	x	y
1	0.280	0.248	0.264	0.267	0.283	0.305	0.296	0.276
2c	0.287	0.295	0.283	0.305	0.304	0.330	0.307	0.315
2d	0.296	0.276	0.287	0.295	0.307	0.315	0.311	0.294
2e	0.307	0.315	0.304	0.330	0.330	0.360	0.330	0.339
2f	0.311	0.294	0.307	0.315	0.330	0.339	0.330	0.318
3	0.330	0.318	0.330	0.360	0.361	0.385	0.356	0.351

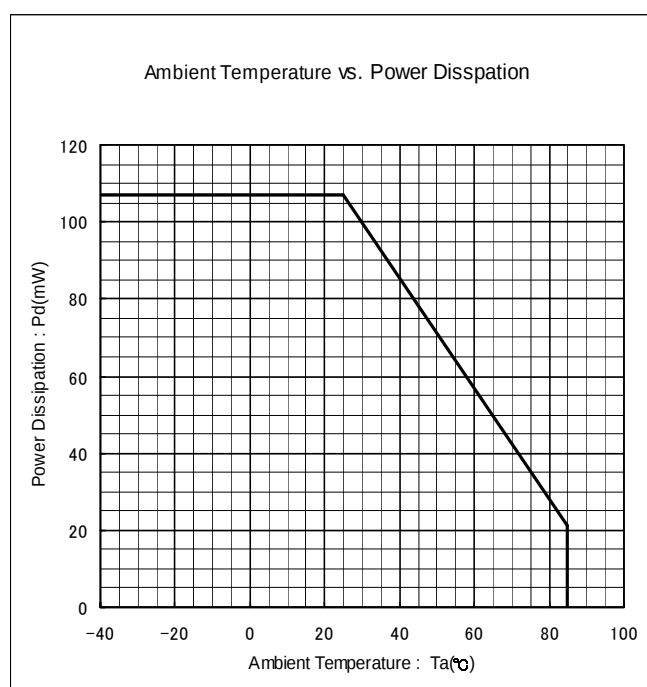
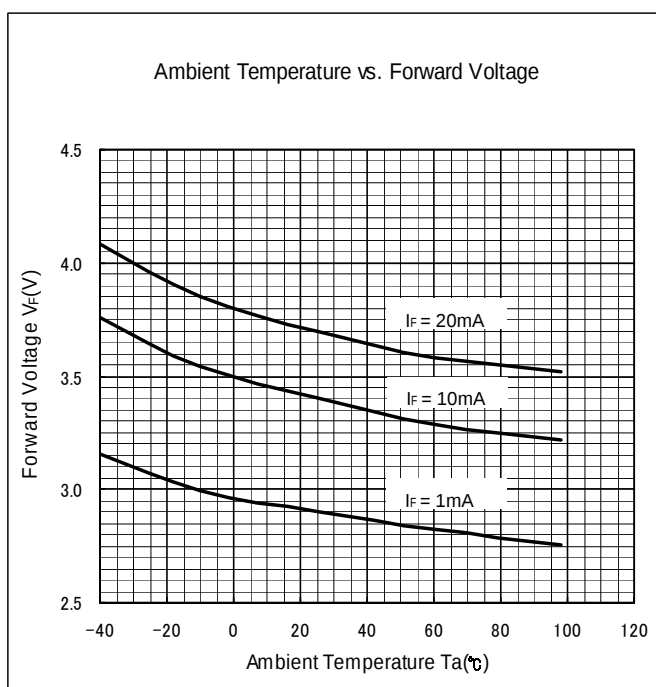
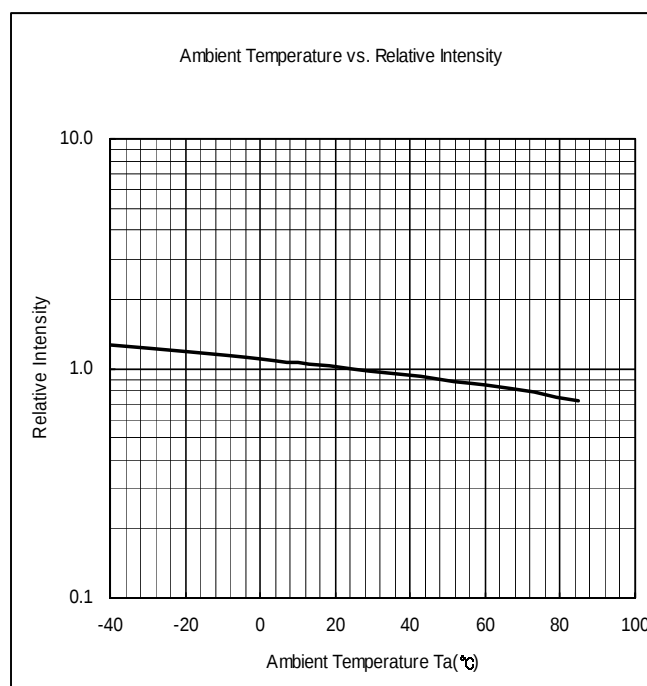
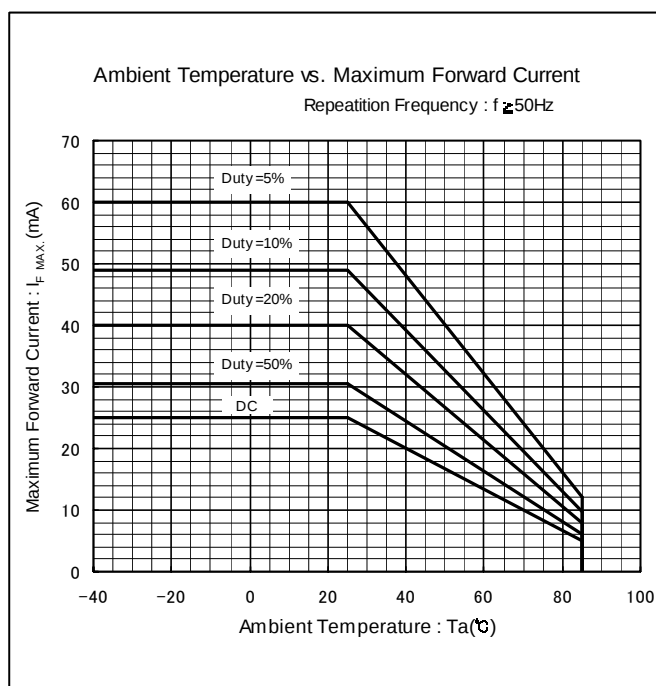
※ The above values are reference values.

※ Please contact our sales staff concerning rank designation.

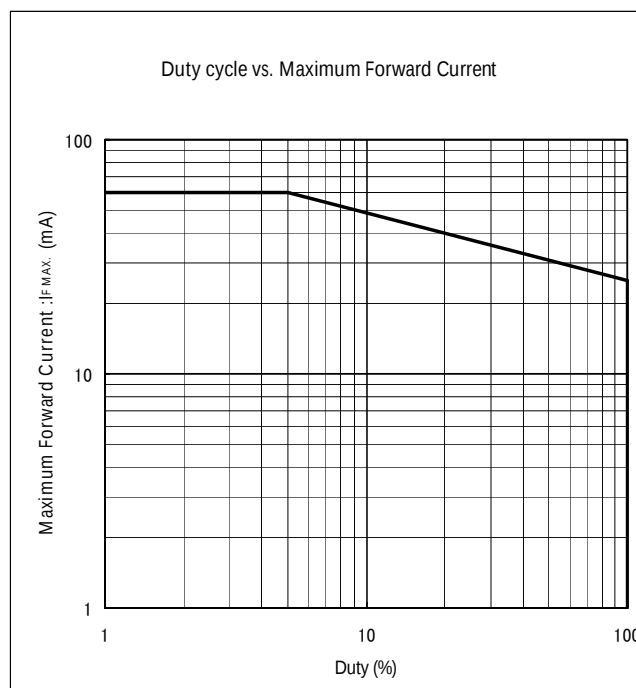
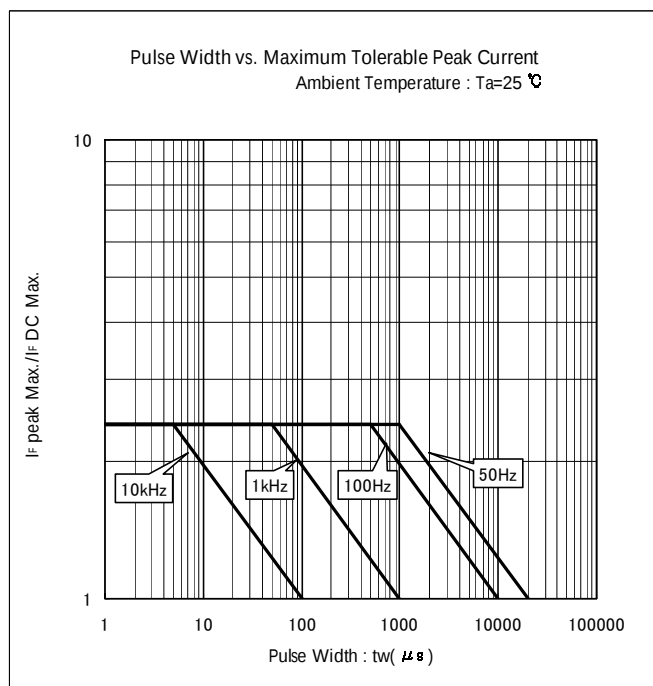
Technical Data



Technical Data



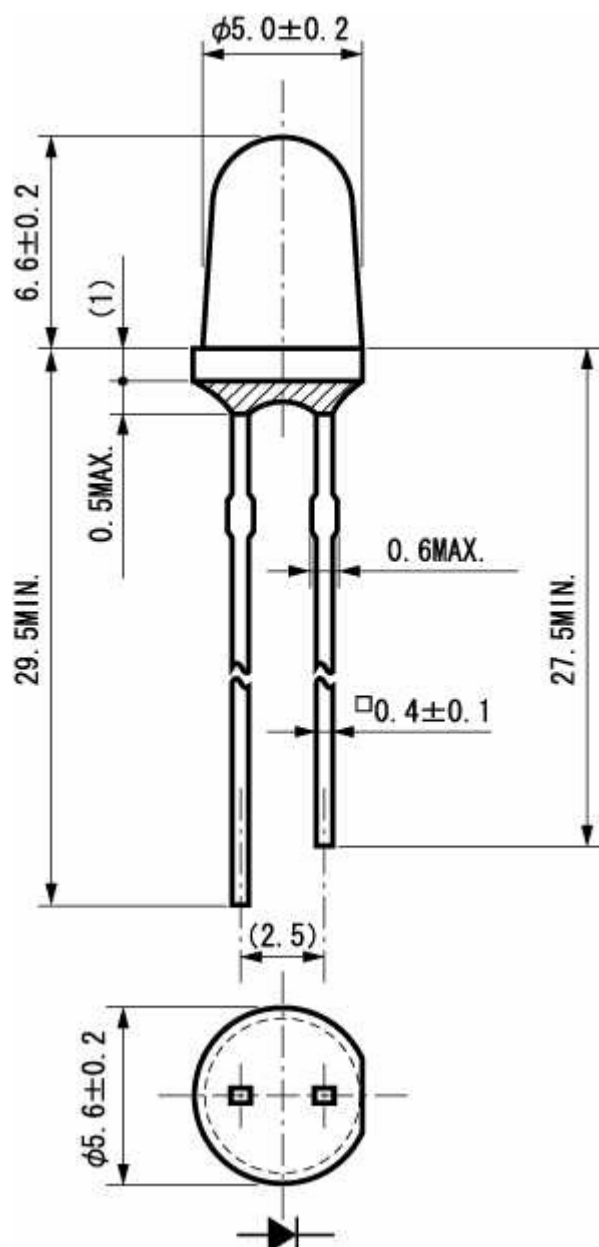
Technical Data



Package Dimensions

(Unit: mm)

Weight: (0.28)mg



TTW (Through The Wave) soldering Conditions

Pre-heating	100 60 s	(MAX.) (MAX.)
Solder Bath Temp.	265	(MAX.)
Dipping Time	5 s	(MAX.)

- 1) The dip soldering process shall be 2 times maximum.
- 2) The product shall be cooled to room temp. before the second dipping process.

Manual Soldering Conditions

Iron tip temp.	400	(MAX.)
Soldering time and frequency	3 s 2 times	(MAX.) (MAX.)

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