光鋐科技股份有限公司

Epileds Technologies, Inc.

Product specification of 45 x 45mil UV LED flip chip.

1. Scope：

This specification applies to InGaN/GaN 45 x 45mil UV LED flip chip, FP-U4545BRA4。

2. Materials：

2.1 P-pad：AuSn

2.2 N-pad：AuSn

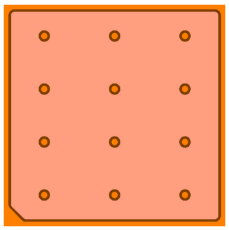
3. Dimensions：

3.1 Chip size：1140±25μm x 1140±25μm。

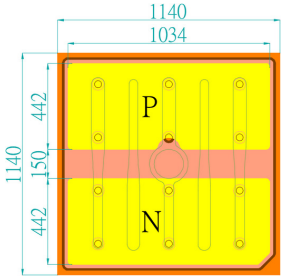
3.2 P-pad：1034±25μm x 442±25μm。

3.3 N-pad：1034±25μm x 442±25μm。

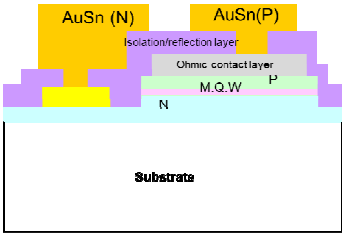
3.4 Chip thickness：150μm±10μm。



Sapphire side up



AuSn side up



4. Electro-optical characteristics and specification: (Tc=25°C)

4.1 Electro-optical characteristics

Test parameter	Condition	Min.	Typ.	Max.	Unit
Peak wavelength(Wp)	350mA	365	-	440	nm
Forward voltage(Vf1)	350mA	2.8	-	3.8	V
Forward voltage(Vf4)	10uA	2	-	-	V
Reverse current (Ir)	-5V	0	-	2	uA
Iv@380~390nm	350mA	350	-	380	mW/sr
		380	-	400	
		400	-	425	
		425	-	450	
Iv@390~400nm	350mA	380	-	400	mW/sr
		400	-	425	
		425	-	450	
		450	-	475	
		475	-	500	
Iv@400~410nm	350mA	400	-	425	mW/sr
		425	-	450	
		450	-	475	
		475	-	500	
		500	-	525	

- The above data were measured by Epileds' tester.
- The above data was measured at RT(Ta=25°C).
- The above data were measured by Epileds' tester with wavelength error ±1nm & radiant intensity error ±10%

4.2 Absolute Maximum Ratings

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	If	Ta=25℃	≦700	mA
Reverse Voltage	Vr	Ta=25℃	≦5	V
Junction Temperature	Tj	-	≦115	℃
Operating ambient temperature	Ta	Chip	-40~+85	℃
Storage Temperature	Tstg	Chip-on-tape/storage	5~35	℃
		Chip-on-tape/transportation	-20~+65	℃
Temperature during Packaging	-	-	280(＜10sec)	℃

Note：Maximum ratings are package dependent. The above maximum ratings were determined using a metal core printed circuit board(MCPCB) without an encapsulant. Stresses in excess of the absolute maximum rating such as forward and junction temperature may cause damage to the led.

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** The detailed technical and reliability datasheet are also available for your reference, please be free to contact us.*