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New Product for LED Application

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Passive Solution for Fortimo SLM Gen3 3000lm

A. D99H110 Specifications :

- HS Volume : D99x110mm
- Base material : Al + Cu + Heat Pipe & Fin Material : Al
- HS Weight : 211 grams
- Chip Reference : Fortimo LED SLM 3000 33W/930 L19 G3
 - TDP : max. P electrical=36.7W, max. P thermal=23.8W
 - LED spec : Ta=25C, max. Tc <75C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.

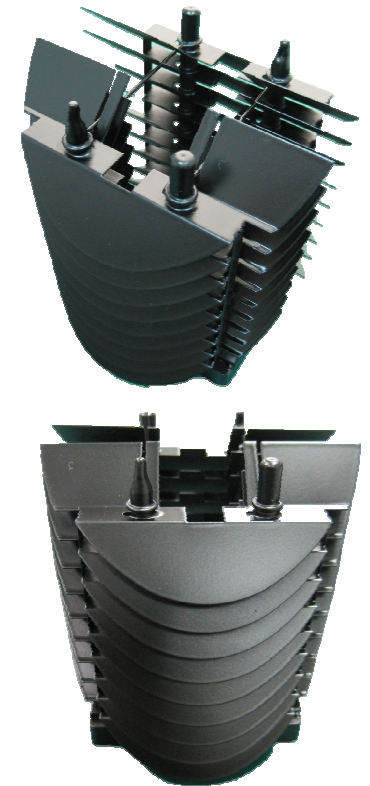
B. Product Guide :

Model Number	Mounting Description	Specifics
SM203-13002	Philips, Zhaga pattern	SLM
SM203-14001Y	Citizen, Zhaga pattern	CLL030, CLL032

C. Mass Production Lead-time : 8 weeks

D. Advantage :

- Passive, no energy consumption
- Very Light weight, Compact
- Zero noise levels, Easy installation



Passive Solution for Fortimo SLM Gen3 3000lm

A. D90H110 Specifications :

- HS Volume : D90x110mm
- Base material : Al + Cu + Heat Pipe & Fin Material : Al
- HS Weight : 195 grams
- Chip Reference : Fortimo LED SLM 3000 33W/930 L19 G3
 - TDP : max. P electrical=36.7W, max. P thermal=23.8W
 - LED spec : Ta=25C, max. Tc <75C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.

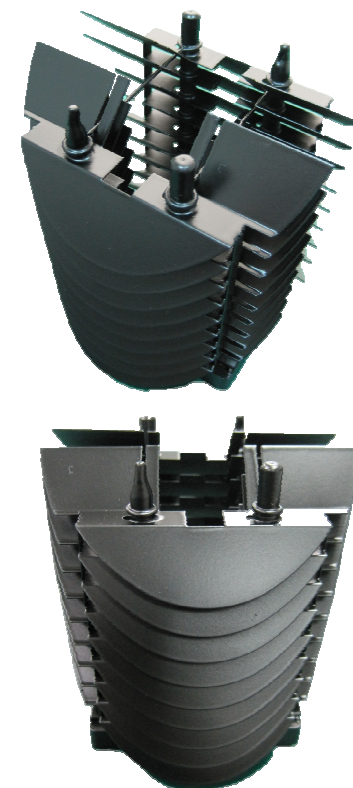
B. Product Guide :

Model Number	Mounting Description	Specifics
SM203-13004Y	Philips, Zhaga pattern	SLM
SM203-14002Y	Citizen, Zhaga pattern	CLL030, CLL032

C. Mass Production Lead-time : 8 weeks

D. Advantage :

- Passive, no energy consumption
- Very Light weight, Compact
- Zero noise levels, Easy installation



Passive Solution for Fortimo SLM Gen3 4500lm

A. D99H160 Specifications :

- HS Volume : D99x160mm
- Base material : Al + Cu + Heat Pipe
- Fin Material : Al
- HS Weight : 290 grams
- Chip Reference : Fortimo LED SLM 4500 45W/830 L22 G3
 - TDP : max. P electrical=49.4W, max. P thermal=33.6W
 - LED spec : Ta=25C, max. Tc <75C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.

B. Product Guide :

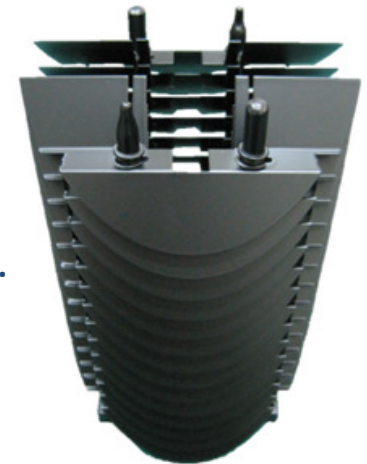
Model Number	Mounting Description	Specifics
SM205-13001	Philips, Zhaga pattern	SLM

C. Prototype Lead-time : 2 weeks

D. Mass Production Lead-time : 8 weeks

E. Advantage :

- Passive, no energy consumption
- Very Light weight, Compact
- Zero noise levels, Easy installation



Passive Solution for Fortimo DLM Gen5 1100lm

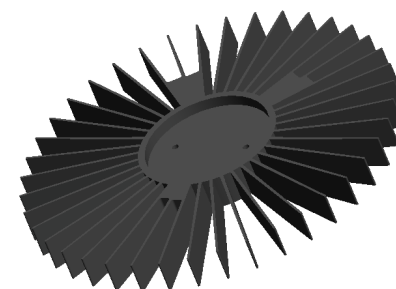
A. D170H15 Specifications :

- HS Volume : D170x15mm
- Fin Material : Al
- HS Weight : 217 grams
- Chip Reference : Fortimo LED DLM 1100 11W/830 Gen5
 - TDP : max. P electrical=12W, max. P thermal=5.8W
 - LED spec : Ta=35C, max. Tc <70C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.



B. Product Guide :

Model Number	Mounting Description	Specifics
SA001-14008N	Philips, Zhaga pattern	DLM



C. Prototype Lead-time : 2 weeks

D. Mass Production Lead-time : 6 weeks

E. Advantage :

- Passive, no energy consumption
- Zero noise levels
- Easy installation

Passive Solution for Fortimo DLM Gen5 2000lm

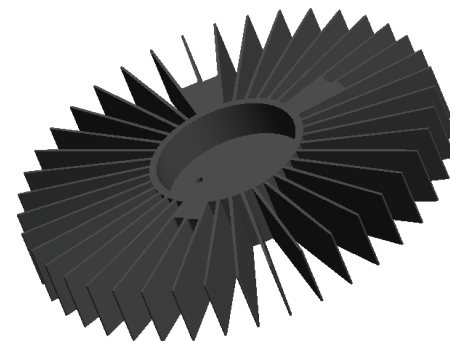
A. D170H25 Specifications :

- HS Volume : D170x25mm
- Fin Material : Al
- HS Weight : 317 grams
- Chip Reference : Fortimo LED DLM 2000 21W/830 Gen5
 - TDP : max. P electrical=23W, max. P thermal=11.3W
 - LED spec : Ta=35C, max. Tc <70C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.



B. Product Guide :

Model Number	Mounting Description	Specifics
SA002-14004N	Philips, Zhaga pattern	DLM



C. Prototype Lead-time : 2 weeks

D. Mass Production Lead-time : 6 weeks

E. Advantage :

- Passive, no energy consumption
- Zero noise levels
- Easy installation

Passive Solution for Fortimo DLM Gen5 3000lm

A. D170H40 Specifications :

- HS Volume : D170x40mm
- Fin Material : Al
- HS Weight : 467 grams
- Chip Reference : Fortimo LED DLM 3000 32W/830 Gen5
 - TDP : max. P electrical=35W, max. P thermal=17.4W
 - LED spec : Ta=35C, max. Tc <70C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.



B. Product Guide :

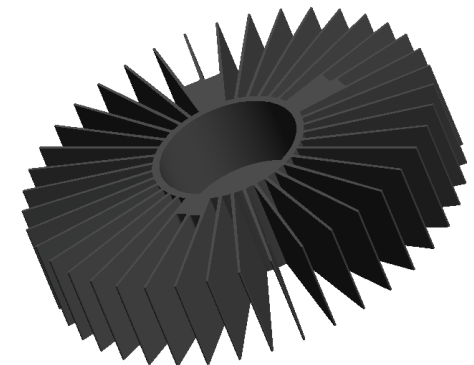
Model Number	Mounting Description	Specifics
SA003-14003N	Philips, Zhaga pattern	DLM

C. Prototype Lead-time : 2 weeks

D. Mass Production Lead-time : 6 weeks

E. Advantage :

- Passive, no energy consumption
- Zero noise levels
- Easy installation



Passive Solution for Citizen CLL012

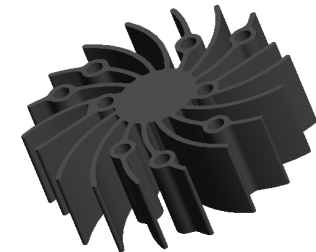
A. D50H15 Specifications :

- HS Volume : D50x15mm
- Fin Material : Al
- HS Weight : 25.3 grams
- Chip Reference : Citizen - CLL012
- TDP : max. P electrical=6.7W, max. P thermal=4.7W
- LED spec : Ta=35C, max. Tc <100C
- Remark :
TDP (thermal design power) is for reference only.
Actual thermal performance must be verified by different applications.



B. Product Guide :

Model Number	Mounting Description	Specifics
SA000-14013N	Citizen, Zhaga pattern	CLL012



C. Prototype Lead-time : 2 weeks

D. Mass Production Lead-time : 6 weeks

E. Advantage :

- Passive, no energy consumption
- Zero noise levels
- Easy installation

Passive Solution for Citizen CLL022

A. D50H40 Specifications :

- HS Volume : D50x40mm
- Fin Material : Al
- HS Weight : 70 grams
- Chip Reference : Citizen – CLL022
- TDP : max. P electrical=10.7W, max. P thermal=7.5W
- LED spec : Ta=35C, max. Tc <100C
- Remark :

TDP (thermal design power) is for reference only.

Actual thermal performance must be verified by different applications.

B. Product Guide :

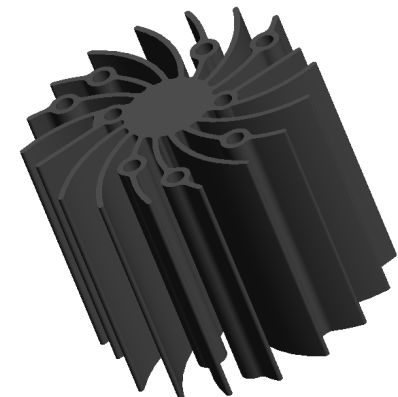
Model Number	Mounting Description	Specifics
SA000-14007N	Citizen, Zhaga pattern	CLL022

C. Prototype Lead-time : 2 weeks

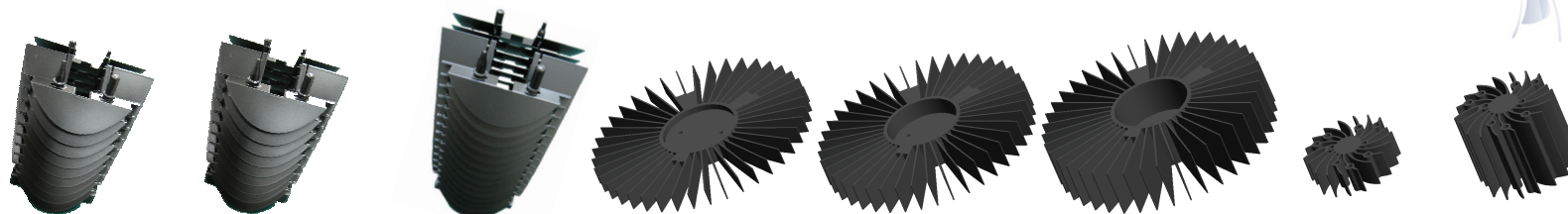
D. Mass Production Lead-time : 6 weeks

E. Advantage :

- Passive, no energy consumption
- Zero noise levels
- Easy installation



New Product Summary for LED Lighting



LED Module Type	Fortimo SLM 3000lm Gen3	Fortimo SLM 3000lm Gen3	Fortimo SLM 4500lm Gen3	Fortimo DLM 1100lm Gen5	Fortimo DLM 2000lm Gen5	Fortimo DLM 3000lm Gen5	COB CLL012	COB CLL022
Dimension (mm)	D90x110	D99x110	D99x160	D170x15	D170x25	D170x40	D50x15	D50x40
Weight (g)	195	211	290	217	317	467	25.3	70
Material	AL1050 ADC10 C1100	AL1050 ADC10 C1100	AL1050 ADC10 C1100	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5
Surface Treatment	Black Painting	Black Painting	Black Painting	Black Anodized	Black Anodized	Black Anodized	Black Anodized	Black Anodized
*1 TDP (W)	36.7	36.7	49.4	12	23	35	6.7	10.7
Multiple Holes	*2	*2	*2	*2	*2	*2	*3	*4
Ambient Temperature (C)	25	25	25	35	35	35	35	35
Case Temperature (C)	75	75	75	70	70	70	100	100
dT (Tc-Ta) (C)	50	50	50	35	35	35	65	65
*1 Thermal Resistance (C/W)	1.36	1.36	1.01	2.92	1.52	1.00	9.7	3.08

* 1 TDP (=max. electrical power) and thermal resistance is for reference only. Actual thermal performance must be verified by different applications.

* 2 Multiple holes are for Zhaga, Philips Fortimo SLM, Citizen, Osram PrevalLED, Bridgelux RS Array, Vossloh-Schwabe WU-M-Series.

* 3 Multiple holes are for Zhaga, Citizen CLL012.

* 4 Multiple holes are for Zhaga, Citizen CLL022.



Sunon Developed Thermal Solutions (Reference Design)

Reference Design for LED Lighting

■ D56 / D70 / D85 Series



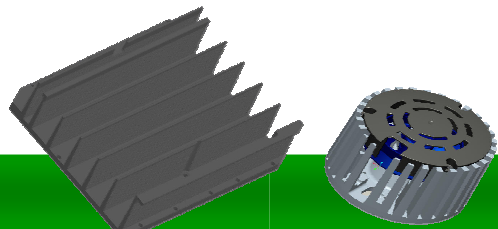
Reference Design										
Dimension (mm)	D56x52	D56x56	D70x50	D70x80	D85x50	D85x55	D85x75	D85x80	D85x88	D85x90
Weight (g)	295	350	110	175	256	234	343	462	376	387
Material	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5
Surface Treatment	Black Anodized	Black Anodized	Black Anodized	Black Anodized	Black Anodized	Black Anodized	Black Anodized	Anodized Natural	Black Anodized	Black Anodized
*1 TDP (W)	7.1	7.1	14.3	17.1	15	15	21.4	21.4	22.9	22.9

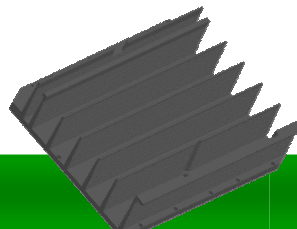
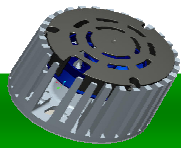
■ D86 / D99 Series



Reference Design						
Dimension (mm)	D86x10	D86x20	D86x55	D86x110	D99x50	D99x80
Weight (g)	42	86	238	478	158	253
Material	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5	AL6063-T5
Surface Treatment	Anodized Natural	Anodized Natural	Black Anodized	Black Anodized	Black Anodized	Anodized Natural
*1 TDP (W)	10.7	17.9	26.4	42.1	24.3	31.4

■ Other Applications



	
301x261x82.5	D101x71.2
4136	465
AL6063-T5	ADC12/PBT+30%GF +HA6015
Black Anodized	Black Painting
150~200	54

* 1 TDP (=max. electrical power) is for reference only. Actual thermal performance must be verified by different applications.



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