

Customer's name :

Specification No. : Ref.CE-P678 03/10

## Specifications sheet for approval

Product name : L250-LENS15

Parts No. : 516-A00070

### Page No.

page	item	drawing No.
1	Drawing	AL2-033-03
2	Packing specification	
3	Physical properties	

Approval Signature

### CITIZEN ELECTRONICS CO.,LTD

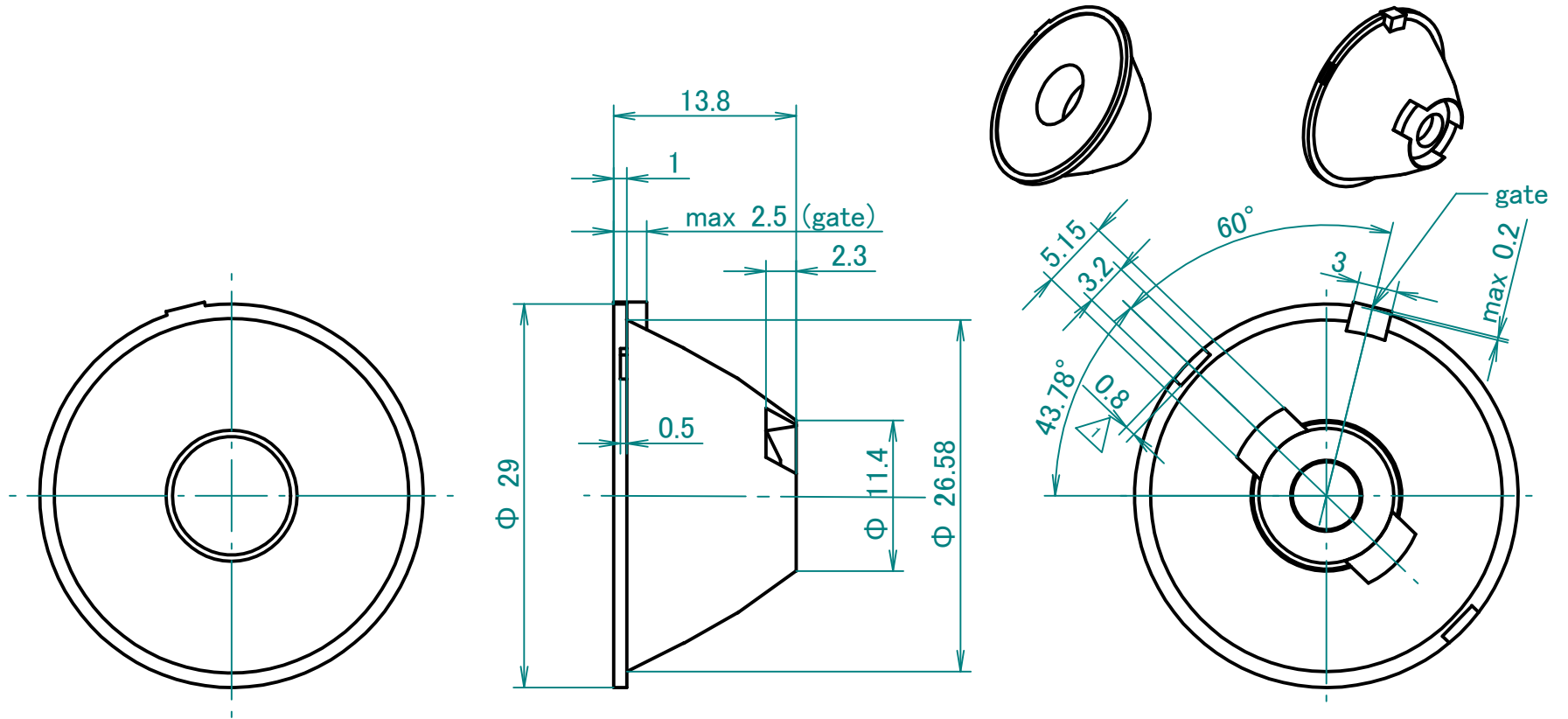
1-23-1,Kami-Kurechi,Fujiyoshida-shi,  
Yamanashi-Ken 403-0001,JAPAN

Tel : (0555)23-4121

Fax : (0555)24-2426

Sales department				
Approved	Checked		Drawn	

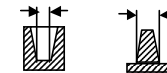
GQP-0013-F03-3  
(SGP-0013-F05-0)



LIMITS UNLESS OTHERWISE NOTE				
		★		
$L \leq 6$	$\pm 0.05$	$\pm 0.1$	$\pm 0.2$	$\pm 0.3$
$6 < L \leq 18$	$\pm 0.08$	$\pm 0.2$	$\pm 0.3$	$\pm 0.5$
$18 < L \leq 50$	$\pm 0.1$	$\pm 0.3$	$\pm 0.5$	$\pm 1.0$
$50 < L \leq 120$	$\pm 0.18$	$\pm 0.45$	$\pm 0.8$	$\pm 1.5$
$120 < L \leq 400$	$\pm 0.28$	$\pm 0.7$	$\pm 1.2$	$\pm 2.0$
Angle	$\pm 1^\circ$			

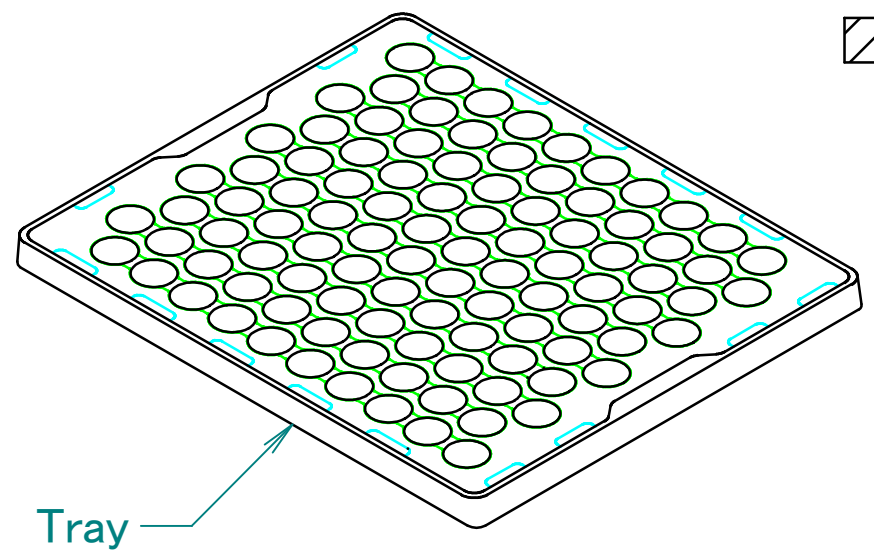
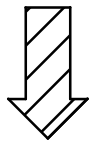
Remarks

- 1 This drawing for Citizen Electronics Co., LTD. : CL-L250 series only
- 2 Material: PC
- 3 The angle R without directions is set to 0.2.
- 4 No scratches, stain, etc allows.
- 6 Dimension is based on as follows.



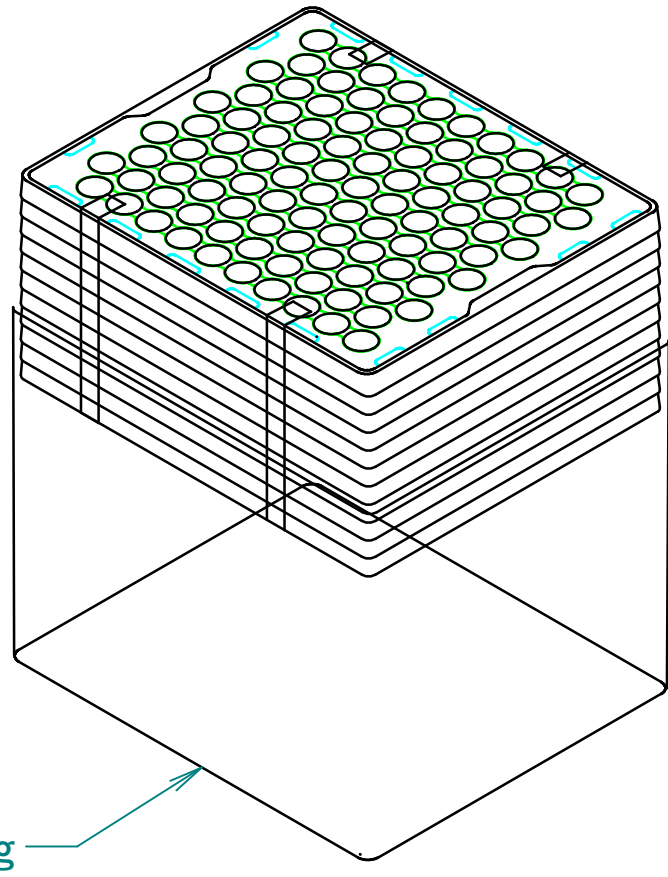
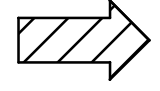
6			General tolerances		Symbol	L250-LENS15	
5			Dimensions	refer leftward table	Name	Lens	
4			Angles	refer leftward table	Part No.	516-A00070	
3			Alternation		Drawin No.	AL2-033-03	
2			Drawn	K.Matsuyama	Date	2009.07.14	
1	10.01.13	Adjustment of fit	Checked	K.Sasuga			
	09.12.03	full-fledged revision	Approved	K.Funakubo			
Mark	Date	Description	Scale	2 / 1	Unit	mm	
<b>CITIZEN ELECTRONICS Co.,Ltd</b>							

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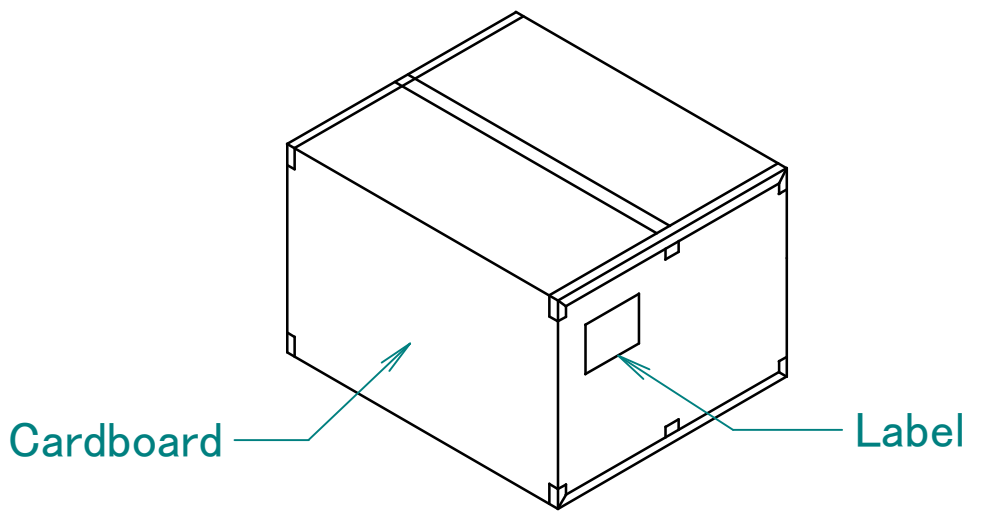
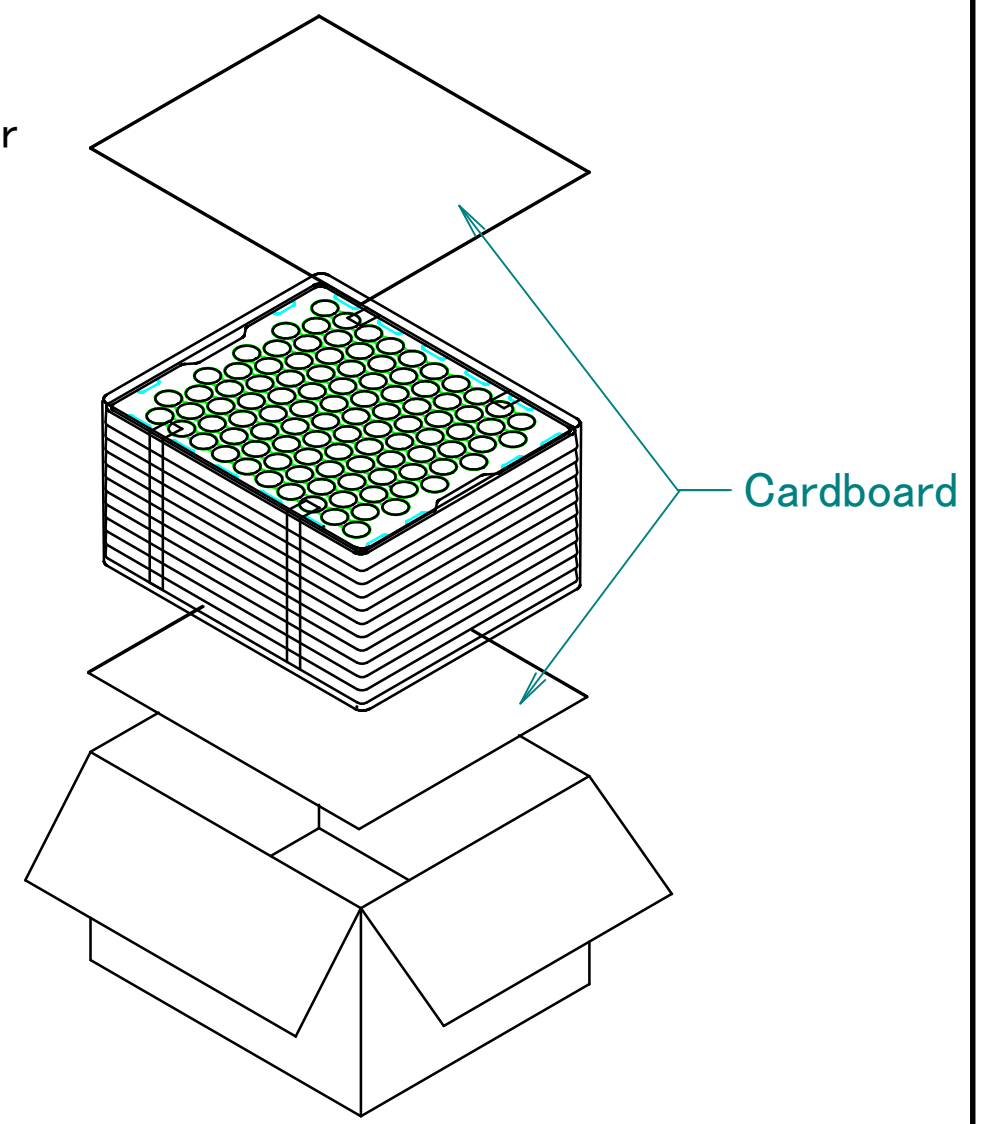
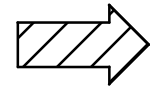


100pcs./tray

stack 10 tray (Max) + empty tray as top cover



Max 1000pcs./bag



Label	
CITIZEN ELECTRONICS CO., LTD.	
Part Name	L250-LENS15
Part No.	516-A00070
Lot No.	
Quantity	
Date	QC

arbitrary size

△			General tolerances		Symbol	L250-LENS15	
△			Dimensions		Name	packing specification	
△			Angles		Part No.		
△			Alternation		Drawin No.		
△			Drawn	K.Matsuyama	Date	2010/01/13	
△			Checked	K.Sasuga			
△			Approved	K.Funakubo			
Mark	Date	Description	Appro.	Scale	free /	Unit	mm

CITIZEN ELECTRONICS Co.,ltd

## PHYSICAL PROPERTIES

Property	Test Method	Condition	Unit	
<b>Optical</b>				
Light transmission	ASTM D 1003	3mm	%	88
Reflective Index	ASTM D 542	-	-	1.585
<b>Mechanical</b>				
Tensile modulus	ISO 527-1 and ISO 527-2	1mm/min	MPa	2400
Tensile strength at yield		50mm/min	MPa	62
Tensile strain at yield		50mm/min	%	6
Nominal tensile strain at break		50mm/min	%	>50
Flexural modulus	ISO 178	2mm/min	MPa	2400
Flexural strength	ISO 178	2mm/min	MPa	94
Charpy impact strength	ISO 179	unnotched	kJ/m <sup>2</sup>	NB
	ISO 179	notched	kJ/m <sup>2</sup>	58
Rockwell hardness	ISO 2039-2	M scale	-	77
<b>Thermal</b>				
Heat deflection temperature	ISO 75-1 and ISO 75-2	1.8MPa	°C	125
		0.45MPa	°C	138
Vicat softening point	ISO 306	50°C/h 50N	°C	142
Melt volume flow rate	ISO 1133	300°C load 1.2kg	cm <sup>3</sup> /10min	24
Coefficient of linear expansion	ISO 11359-2	parallel	x10 <sup>-4</sup> /k	0.7
		vertical	x10 <sup>-4</sup> /k	0.7
<b>Electrical</b>				
Surface resistivity	IEC 60093	-	Ω	>10 <sup>15</sup>
Volume resistivity	IEC 60093	-	Ω m	>10 <sup>13</sup>
Withstand voltage	IEC 60243-1	short time test	MV/m	30
Specific Inductive capacity	IEC 60250	100Hz	-	3.1
		1MHz	-	3
Dielectric loss tangent	IEC 60250	100Hz	x10 <sup>-4</sup>	10
		1MHz	x10 <sup>-4</sup>	90
Tracking resistance	IEC 60112	-	-	225
<b>Other</b>				
Density	ISO 1183	-	kg/m <sup>3</sup>	1200
Water absorption at 23°C	ISO 62	In water 24h	%	0.2
Flammability	UL94	-	class	HB

\*Values reported are typical and should not be used for specification purpose.