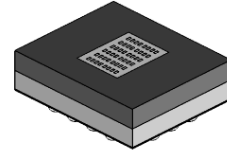
iC-LS oBGA LS2C
PHOTOSENSOR PACKAGE SPECIFICATION

ORDERING INFORMATION

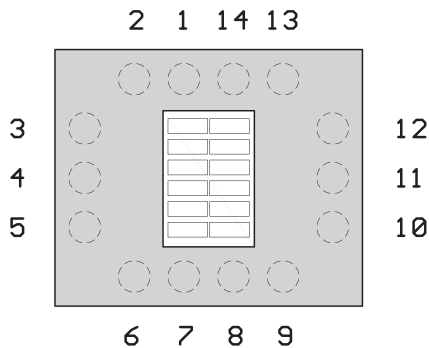
Type	Package	Options	Order Designation
iC-LSA	oBGA LS2C	reticle type	iC-LSA oBGA LS2C-LSxR
iC-LSB	oBGA LS2C	reticle type	iC-LSB oBGA LS2C-LSxR
iC-LSC	oBGA LS2C	reticle type	iC-LSC oBGA LS2C-LSxR



6.2 mm x 5.2 mm
RoHS compliant

PIN CONFIGURATION

(top view)



PIN FUNCTIONS

No.	Name	Function	iC-LSA	iC-LSB	iC-LSC
1	VCC	+4...+5.5 V Supply Voltage	•	•	•
2	A1	Highside Current Source Output	•	•	•
3	B1	Highside Current Source Output	•	•	•
4	C1	Highside Current Source Output	n/c	•	•
5	D1	Highside Current Source Output	n/c	•	•
6	E1	Highside Current Source Output	n/c	n/c	•
7	F1	Highside Current Source Output	n/c	n/c	•
8	F2	Highside Current Source Output	n/c	n/c	•
9	E2	Highside Current Source Output	n/c	n/c	•
10	D2	Highside Current Source Output	n/c	•	•
11	C2	Highside Current Source Output	n/c	•	•
12	B2	Highside Current Source Output	•	•	•
13	A2	Highside Current Source Output	•	•	•
14	GND	Ground	•	•	•

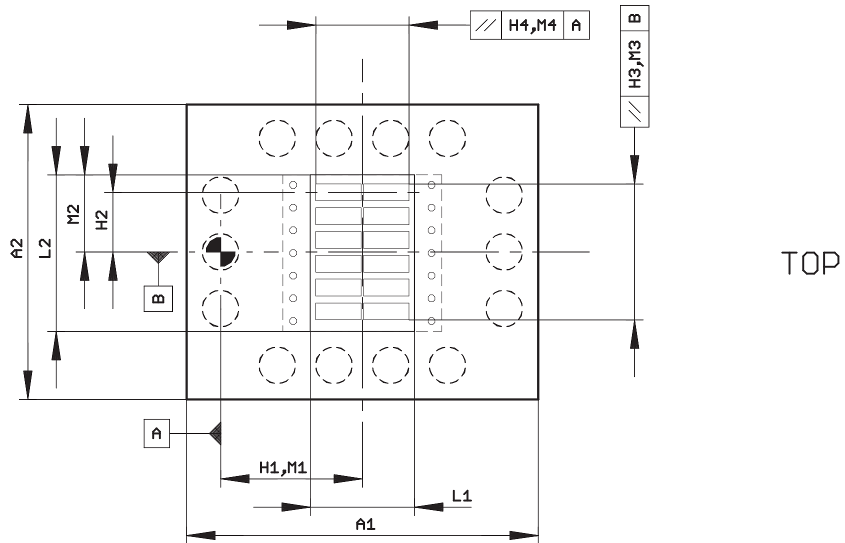
ABSOLUTE MAXIMUM RATINGS

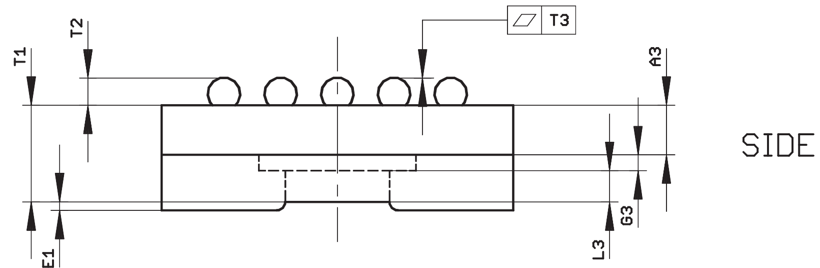
Item	Symbol	Parameter	Conditions	Fig.	Min.	Typ.	Max.	Unit
TG1	Ta	Operating Ambient Temperature Range (extended temperature range on request)			-20		90	°C
TG2	Ts	Storage Temperature Range			-30		110	°C
TG3	Tpk	Reflow Soldering Peak Temperature	tpk < 20 s, convection reflow tpk < 20 s, vapour phase TOL (time on label) 8 h; please refer to customer information file No. 7 for details				260 230	°C °C

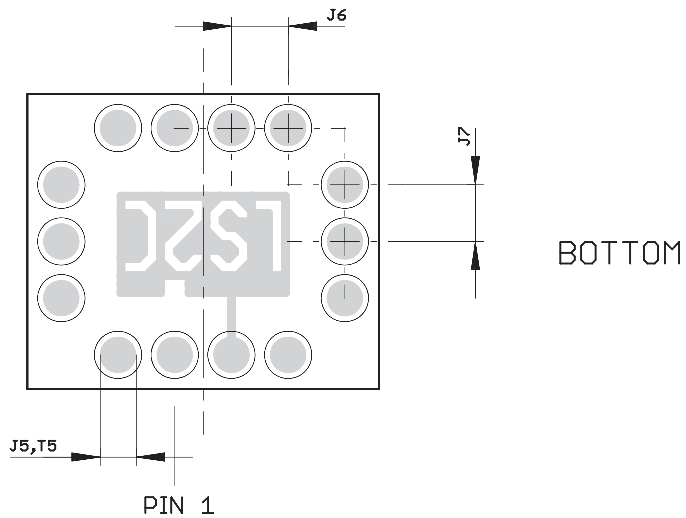
Copyright © 2008, iC-Haus

Downloaded from Elcodis.com electronic components distributor

PHYSICAL DIMENSIONS







Downloaded from Elcodis.com electronic components distributor

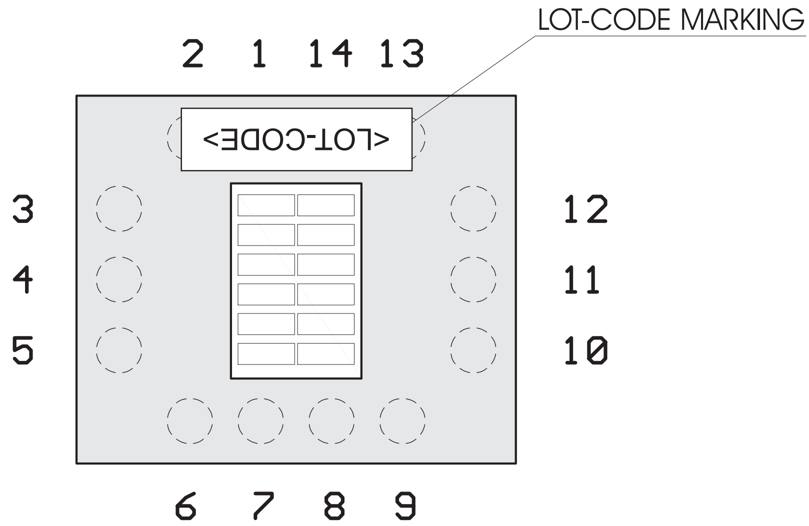
DIMENSION TABLE

Item	Parameter	Comments	Min.	Typ.	Max.	Tolerance	Unit
	Substrate						
A1	Outline X			6.2		±0.1	mm
A2	Outline Y			5.2		±0.1	mm
A3	Substrate Thickness	bottom package to bottom die		0.87			mm
	Chip Placement						
G3	Chip Thickness			0.30			mm
H1	Sensor Array Position vs. Bottom Metal X	center of array		2.5		±0.15	mm
H2	Sensor Array Position vs. Bottom Metal Y	center of outermost trace		1.05		±0.15	mm
H3 H4	Parallelism Sensor Array vs. Bottom Metal				0.1		mm
	Bottom Metal Pattern						
J5	Lead Diameter			0.635		±0.03	mm
J6	Lead Pitch X **(or Lead-Lead Distance X)**			1.0			mm
J7	Lead Pitch Y **(or Lead-Lead Distance Y)**			1.0			mm
	Glass/Reticle Cover						
L1	Glass/Reticle Size X			1.84			mm
L2	Glass/Reticle Size Y	iC-LSA iC-LSB iC-LSC		1.10 1.84 2.64			mm mm mm
L3	Glass/Reticle Thickness			0.50			mm
M1	Glass/Reticle Position vs. Bottom Metal X			2.5			mm
M2	Glass/Reticle Position vs. Bottom Metal Y			1.36			mm
M3 M4	Parallelism Reticle-Pattern vs. Bottom Metal				0.15		mm
	Encapsulation						
E1	Coating Excess	surface glass to surface coating			0.05		mm
	Thickness Specifications						
T1	Overall Thickness	bottom substrate to top of glass (nominal glass cover thickness of 0.50 mm)	1.50		1.85		mm
T2	Solder Ball Height	drawing not to scale	0.36		0.5		mm
T3	Solder Ball Coplanarity					±0.05	mm
T5	Solder Ball Diameter			0.635			mm

Downloaded from Elcodis.com electronic components distributor

LOT-CODE MARKING (Position / Orientation)

Position and Orientation of Lot-Code Marking indicate Orientation of Device.



Downloaded from Elcodis.com electronic components distributor

REVISION HISTORY

Rev	Notes	Pages affected
1	Initial version	
2	Physical Dimensions/Dimension Table: Items H3, H4, M3, M4 changed from Symmetry to Parallelism; General Handling Instructions: RH updated from 20% to 10%; Revision of Absolute Maximum Ratings (TG3) Reflow Soldering; Disclaimer updated; Physical Dimensions/Dimension Table: item E1 added; Dimension Table: Items A3, G3, L3, T1 changed	all
3	Section Lot-Code Marking added, Disclaimer updated	4, 5
4	Correction of dimension L2	3

GENERAL HANDLING INSTRUCTIONS

After opening the dry pack, devices must be mounted within 8 hours (in factory conditions of maximum 30°C / 60% RH) or must be stored at <10% RH. Devices require baking before mounting if the Humidity Indicator Card shows >10% when read at 23°C ±5°C or if the conditions mentioned above are not met. Devices may be baked for 72 hours at 100°C using high-temperature device containers (trays).

Samples
Samples may not be subject for dry pack delivery, and, in that case, are not intended for reflow soldering.

This specification is for a newly developed product. iC-Haus therefore reserves the right to change or update, without notice, any information contained herein, design and specification; and to discontinue or limit production or distribution of any product versions. Please contact iC-Haus to ascertain the current data. Copying – even as an excerpt – is only permitted with iC-Haus approval in writing and precise reference to source.
iC-Haus does not warrant the accuracy, completeness or timeliness of the specification on this site and does not assume liability for any errors or omissions in the materials. The data specified is intended solely for the purpose of product description. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information/specification or the products to which information refers and no guarantee with respect to compliance to the intended use is given. In particular, this also applies to the stated possible applications or areas of applications of the product.
iC-Haus conveys no patent, copyright, mask work right or other trade mark right to this product. iC-Haus assumes no liability for any patent and/or other trade mark rights of a third party resulting from processing or handling of the product and/or any other use of the product.
As a general rule our developments, IPs, principle circuitry and range of Integrated Circuits are suitable and specifically designed for appropriate use in technical applications, such as in devices, systems and any kind of technical equipment, in so far as they do not infringe existing patent rights. In principle the range of use is limitless in a technical sense and refers to the products listed in the inventory of goods compiled for the 2008 and following export trade statistics issued annually by the Bureau of Statistics in Wiesbaden, for example, or to any product in the product catalogue published for the 2007 and following exhibitions in Hanover (Hannover-Messe).
We understand suitable application of our published designs to be state-of-the-art technology which can no longer be classed as inventive under the stipulations of patent law. Our explicit application notes are to be treated only as mere examples of the many possible and extremely advantageous uses our products can be put to.

Downloaded from Elcodis.com electronic components distributor