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Continuity of document content
The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

Continuity of ordering part numbers
Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

Cypress Semiconductor Automotive Package Qualification Report

QTP# 043002 VERSION*A
September 2014

32-Lead Thin Small Outline Package (TSOP I)
MSL3, Pb-Free, 260C Reflow
(AEC-Q100 Automotive)
Taiwan-T Assembly

FOR ANY QUESTIONS ON THIS REPORT, PLEAE CONTACT
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PACKAGE QUALIFICATION HISTORY

QUAL REPORT		DESCRIPTION OF QUALIFICATION PURPOSE		DATE COMP.
043002		32-lead TSOP1 using CY62128BLL, 128K x 8, R52LD-5R , MSL3, Pb-Free, 260C Reflow for AEC-Q100 Automotive assembled @ Taiwan-T		Dec 04

MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION	
Package Designation:	ZT32
Package Outline, Type, or Name:	32-Lead Thin Small Outline Package (TSOP1)
Mold Compound Name/Manufacturer:	Hitachi CEL9200THF
Mold Compound Flammability Rating:	V-O per UL94
Oxygen Rating Index:	N/A
Lead Frame Material:	Copper
Lead Finish, Composition / Thickness:	Pure Sn
Die Backside Preparation Method/Metallization:	Backgrind
Die Separation Method:	100% Wafer Saw
Die Attach Supplier:	Ablestik
Die Attach Material:	8340
Bond Diagram Designation	10-05823
Wire Bond Method:	Thermosonic
Wire Material/Size:	Au, 1.0 mil
Thermal Resistance Theta JA °C/W:	95.93°C/W
Package Cross Section Yes/No:	No
Name/Location of Assembly (prime) facility:	OSE-Taiwan (T)

ELECTRICAL TEST / FINISH DESCRIPTION	
Test Location:	Cypress Philippines (CML-R)
Fault Coverage:	100%

Note: Please contact a Cypress Representative for other packages availability.

RELIABILITY TESTS PERFORMED PER SPECIFICATION REQUIREMENT

Stress/Test	Test Condition (Temp/Bias)	Result P/F
Bond Pull	Mil-Std 883, Method 2011	P
External Visual	MIL-PRF-38535, MILSTD-883, METHOD 2009	P
High Accelerated Saturation Test (HAST)	130°C, 5.5V, 85%RH Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C/60% RH+3IR-Reflow, 260°C+5, -0°C	P
High Temperature Storage	150°C ± 5°C no bias	P
Physical Dimensions	JESD22B100 and B108	P
Pressure Cooker	Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs, 30°C/60% RH+3IR-Reflow, 260°C+5, -0°C	P
Solderability	JESD22-B102	P
Temperature Cycle	Precondition: JESD22 Moisture Sensitivity MSL 3 192 Hrs., 30°C/60% RH+3IR-Reflow, 260°C+5, -0°C	P

Reliability Test Data

QTP #:043002

Device	Fab Lot #	Assy Lot #	Assy Loc	Duration	Samp	Rej	Failure Mechanism
STRESS: BOND PULL							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	COMP	30	0	
STRESS: EXTERNAL VISUAL							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	COMP	249	0	
STRESS: HI-ACCEL SATURATION TEST, 130C, 85%RH, 5.5V, PRE COND 192 HR 30C/60%RH, MSL3							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	96	50	0	
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	128	50	0	
STRESS: HIGH TEMPERATURE STORAGE, no bias							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	1000	50	0	
STRESS: PHYSICAL DIMENSIONS							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	COMP	10	0	
STRESS: PRESSURE COOKER TEST, 121C, 100%RH, PRE COND 192 HR 30C/60%RH, MSL3							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	96	50	0	
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	168	50	0	
STRESS: SOLDERABILITY							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	COMP	15	0	
STRESS: TC CONDITION C, 150C TO -65C, PRE COND 192 HR 30C/60%RH, MSL3							
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	500	50	0	
CY62128BLL (7C62128H)	4351723	*610440642*	TAIWN-T	1000	44	0	

Document History Page

Document Title: QTP#043002: 32-Lead Thin Small Outline Package (TSOP I) MSL3, Pb-Free, 260C Reflow (AEC-Q100 Automotive) Taiwan-T Assembly
Document Number: 001-89452

Rev.	ECN No.	Orig. of Change	Description of Change
**	4141058	HSTO	Initial Spec Release Initiate report as per memo LGQ-143.
*A	4517626	HSTO	Align qualification report based on the new template in the front page

Distribution: WEB

Posting: None