

Cypress Semiconductor Package Qualification Report

**QTP# 99112 VERSION 1.0
April, 2000**

**32 Lead (400mil) SOJ Package Level 2
Omedata**

CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:

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Reliability Director
(408) 432-7069

PLASTIC PACKAGE/ASSEMBLY DESCRIPTION			
Package Outline, Type, or Name:	32Lead (400mil) SOJ Package.		
Mold Compound Name/Manufacturer:	Sumitomo EME7351		
Mold Compound Tg, °C:	125 °C		
Lead Finish, composition:	90%Sn - 10% Pb		
Die Attach Area Plating:	Silver		
Die Attach Method:	Silver Epoxy	Die Attach Material:	8361H Ablestik
Wire Bond Method:	Thermosonic	Wire Material/Size:	Au 1.3 mil
Moisture Level :	Level 2		
Thermal Resistance JA °C/W:	55°C/W		
Name/Location of All Assembly Facilities by Pkg.:	OMEDATA Indonesia (INDNS-O)		

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

RELIABILITY TESTS PERFORMED

Stress/Test	Test Condition (Temp/Bias)	Result P/F
High Accelerated Saturation Test	Bias: 5.5V, 130°C, 85%RH Precondition: JESD22 Moisture Sensitivity Level 2 168 Hrs., 85°C/60%RH + 3IR-Reflow 220°C+ 5, -0°C	P
Temperature Cycle	MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C Precondition: JESD22 Moisture Sensitivity Level 2 168 Hrs., 85°C/60%RH + 3IR-Reflow 220°C+ 5, -0°C	P
High Temperature Storage	165°C, No Bias	P
Acoustic Microscopy, Level 2	Cypress Spec. 25-00104	P
X-Ray	Cypress Spec 12-00292	P

Reliability Test Data

QTP #: 99112

<i>Device</i>	<i>Fab Lot #</i>	<i>Assy Lot #</i>	<i>Assy Loc</i>	<i>Duration</i>	<i>Samp Re</i>	<i>Failure Mechanism</i>
STRESS: HI-ACCEL SATURATION TEST (140C, 85%RH, 5.5V), PRE COND 168 HR 85C/60%RH						
CY7C109-VC	4852142	619906538	INDNS-O	128	48	0
CY7C109-VIB	4916112	519913378	INDNS-O	128	50	0
STRESS: HIGH TEMPERATURE STORAGE, PLASTIC, 165C						
CY7C109-VC	4852142	619906538	INDNS-O	336	48	0
CY7C109-VIB	4916112	519913378	INDNS-O	336	50	0
CY7C109-VIB	4916112	519913378	INDNS-O	1000	50	0
STRESS: TC COND. C -65C TO 150C, PRECONDITION 168 HRS 85C/60%RH (MSL2)						
CY7C109-VIB	4852142	619906498	INDNS-O	300	46	0
CY7C109-VC	4852142	619906538	INDNS-O	300	46	0
CY7C109-VC	4852142	619906538	INDNS-O	1000	46	0
CY7C109-VIB	4916112	519913378	INDNS-O	300	50	0
CY7C109-VIB	4916112	519913378	INDNS-O	500	50	0
CY7C109-VIB	4916112	519913378	INDNS-O	1000	50	0