# Cypress Semiconductor
# Product Qualification Report

**QTP# 024903 VERSION 4.0**
**January 2005**

| Synchronous SRAM Family<br>Technology Derivative R7FT-3R, Fab4 | |
|---|---|
| CY7C1354B<br>CY7C1354BV25<br>CG6306BF | 256K x 36 Pipelined SRAM with NoBL™ Architecture |
| CY7C1356B<br>CY7C1356BV25 | 512K x 18 Pipelined SRAM with NoBL™ Architecture |
| CY7C1355B | 256K x 36 Flow-through SRAM with NoBL™ Architecture |
| CY7C1357B | 512K x 18 Flow-through SRAM with NoBL™ Architecture |
| CY7C1360B | 256K x 36 Pipelined SRAM |
| CY7C1361B | 256K x 36 Flow-through SRAM |
| CY7C1362B | 512K x 18 Pipelined SRAM |
| CY7C1363B | 512K x 18 Flow-through SRAM |
| CY7C1366B | 256K x 36 Pipelined Double-Cycle Deselect SRAM |
| CY7C1367B | 512K x 18 Pipelined Double-Cycle Deselect SRAM |

**CYPRESS TECHNICAL CONTACT FOR QUALIFICATION DATA:**


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## PRODUCT QUALIFICATION HISTORY

| Qual Report | | Description of Qualification Purpose | Date Comp |
|---|---|---|---|
| 014807 | | New Technology Derivative R7FT-3R / Synchronous Dual-Port RAM CY7C0852V, product family and package option. | Feb 02 |
| 012502 | | Device CY7C1360B and CY7C1354BV25 in Technology Derivative R7FT-3R, Fab 4 | Apr 02 |
| 022610 | | Metal Mask change to enhance functionality to CY7C1360B/CY7C1361b/CY7C1366B | Oct 02 |
| 024605 | | New device CY7C1354B | Dec 02 |
| 024903 | | New device CY7C1356BV25, CY7C1356B and all the others of CY7C136*B RAM7 | Dec 02 |
| 042305 | | R7FT-3R, 9 Meg Mask Fix for Glitch | Jul 04 |

**Cypress products are manufactured using qualified processes. The technology qualification for this product is referenced above and must be considered to get a complete and thorough evaluation of the reliability of the product.**

| PRODUCT DESCRIPTION (for qualification) | | |
|---|---|---|
| Qualification Purpose: Qualify CY7C13562BV25 in qualified technology Derivative R7FT-3R, Fab 4 | | |
| Marketing Part #: | CY7C1354B, CY7C1356B, CY7C1354BV25, CY7C1355B, CY7C1356BV25, CY7C1357B CY7C1360B, CY7C1361B CY7C1362B, CY7C1363B CY7C1366B/ CY7C1367B, CG6306BF | |
| Device Description: | 2.5V, 3.3V, Commercial and Industrial | |
| Cypress Division: | Cypress Semiconductor Corporation –Memory Product Division (MPD) | |
| Overall Die (or Mask) REV Level (pre-requisite for qualification): | | Rev. B |
| What ID markings on Die: | 7C13562B | |

| TECHNOLOGY/FAB PROCESS DESCRIPTION – R7FT-3R | | | |
|---|---|---|---|
| Number of Metal Layers: | 3 | Metal Composition: | Metal 1: 150Å Ti / 4,200Å Al / 300Å TiW<br>Metal 2: 150Å Ti /4,200 Å Al / 300Å TiW<br>Metal 3: 150Å Ti / 8,000Å Al / 300Å TiW |
| Passivation Type and Materials: | 1000Å TEOS / 9000Å PECVD Nitride | | |
| Free Phosphorus contents in top glass layer(%): | 0% | | |
| Number of Transistors in Device | 60 million | | |
| Number of Gates in Device | 20 million | | |
| Generic Process Technology/Design Rule (μ-drawn): | CMOS, Triple Metal /0.15 μm | | |
| Gate Oxide Material/Thickness (MOS): | $SiO_2$, 32Å | | |
| Name/Location of Die Fab (prime) Facility: | Cypress Semiconductor -- Bloomington, MN | | |
| Die Fab Line ID/Wafer Process ID: | Fab4/R7FT-3R | | |

**PACKAGE AVAILABILITY**

| PACKAGE | ASSEMBLY SITE FACILITY |
|---|---|
| **119-ball BGA** | **ASE Taiwan** |
| **165-ball FBGA** | **ASE Taiwan** |
| **100-lead TQFP** | **CSPI-R / ASE Taiwan** |

**Note:** Package Qualification details upon request

| MAJOR PACKAGE INFORMATION USED IN THIS QUALIFICATION | |
|---|---|
| **Package Designation:** | A100 |
| **Package Outline, Type, or Name:** | 100-Thin Quad Flat Pack (TQFP) |
| **Mold Compound Name/Manufacturer:** | Hitachi CEL 9200 |
| **Mold Compound Flammability Rating:** | V-O per UL94 |
| **Oxygen Rating Index:** | >28% |
| **Lead Frame Material:** | Copper |
| **Lead Finish, Composition / Thickness:** | Solder plate, 85%Sn, 15%Pb |
| **Die Backside Preparation Method/Metallization:** | N/A |
| **Die Separation Method:** | Wafer Saw |
| **Die Attach Supplier:** | Dexter |
| **Die Attach Material:** | QMI 509 |
| **Die Attach Method:** | Epoxy |
| **Bond Diagram Designation:** | 10-04943 |
| **Wire Bond Method:** | Thermosonic |
| **Wire Material/Size:** | Au, 1.0um |
| **Thermal Resistance Theta JA °C/W:** | 41.7°C/W |
| **Package Cross Section Yes/No:** | N/A |
| **Assembly Process Flow:** | 11-20030 |
| **Name/Location of Assembly (prime) facility:** | Cypress Philippines (CML-R) |

| 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 |
|---|---|---|
| High Temperature Operating Life Early Failure Rate | Dynamic Operating Condition, Vcc Max = 2.3V, 150°C | P |
| High Temperature Operating Life Latent Failure Rate | Dynamic Operating Condition, Vcc Max=2.3V, 150°C | P |
| High Temperature Steady State Life | Static Operating Condition, Vcc Max=3.63V, 150°C | P |
| High Accelerated Saturation Test (HAST) | 130°C, 2.75V,85%RH<br>130°C, 3.63V,85%RH<br>Precondition: JESD22 Moisture Sensitivity MSL 3<br>192 Hrs, 30C/60%RH+3IR-Reflow, 220°C+5, 0°C | P |
| Temperature Cycle | MIL-STD-883C, Method 1010, Condition C, -65°C to 150°C<br>Precondition: JESD22 Moisture Sensitivity MSL 3<br>192 Hrs, 30C/60%RH+3IR-Reflow, 220°C+5, 0°C | P |
| Pressure Cooker | 121°C, 100%RH<br>Precondition: JESD22 Moisture Sensitivity MSL 3<br>192 Hrs, 30C/60%RH+3IR-Reflow, 220°C+5, 0°C | P |
| High Temperature Storage | 150°C ± 5°C no bias | P |
| Electrostatic Discharge Human Body Model (ESD-HBM) | 2,200V<br>MIL-STD-883, Method 3015.7 | P |
| Electrostatic Discharge Charge Device Model (ESD-CDM) | 500V<br>Cypress Spec. 25-00020 | P |
| Current Density | Cypress Spec 22-00029 | P |
| Age Bond Strength | 200°C, 4HRS<br>MIL-STD-883, Method 883-2011 | P |
| Acoustic Microscopy, MSL 3 | Cypress Spec. 25-00104 | P |
| Dynamic Latchup | In accordance with JEDEC 17. Cypress Spec. 01-00081 | P |
| Static Latchup | 125C, 10V, ± 300mA<br>In accordance with JEDEC 17. Cypress Spec. 01-00081 | P |

**RELIABILITY FAILURE RATE SUMMARY**

| Stress/Test | Device Tested/ Device Hours | # Fails | Activation Energy | Thermal AF[3] | Failure Rate |
|---|---|---|---|---|---|
| High Temperature Operating Life Early Failure Rate | 4,116 | 1 | N/A | N/A | 243 PPM |
| High Temperature Operating Life[1,2] Long Term Failure Rate | 1,234,120 DHRs | 0 | 0.7 | 170 | 4 FIT |

[1] Assuming an ambient temperature of 55°C and a junction temperature rise of 15°C.
[2] Chi-squared 60% estimations used to calculate the failure rate..
[3] Thermal Acceleration Factor is calculated from the Arrhenius equation

$$AF = \exp\left[\frac{E_A}{k}\left[\frac{1}{T_2} - \frac{1}{T_1}\right]\right]$$

where:

$E_A$ =The Activation Energy of the defect mechanism.
k = Boltzmann's constant = $8.62 \times 10^{-5}$ eV/Kelvin.
$T_1$ is the junction temperature of the device under stress and $T_2$ is the junction temperature of the device at use conditions.

# Reliability Test Data

**QTP #: 014807**

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: ACOUSTIC-MSL3*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | COMP | 15 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | COMP | 15 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | COMP | 15 | 0 | |
| ***STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.3V, Vcc Max*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 48 | 772 | 0 | |
| CY7C0852V-BC(7C08523A) | 4141878 | *610145152* | ASE-TAIWN | 96 | 455 | 0 | |
| ***STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, 150C, 2.3V, Vcc Max*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | 80 | 300 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | 500 | 274 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 80 | 400 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 500 | 193 | 0 | |
| CY7C0852V-BC(7C08523A) | 4133371 | *610137695* | ASE-TAIWN | 80 | 400 | 0 | |
| CY7C0852V-BC(7C08523A) | 4133371 | *610137695* | ASE-TAIWN | 500 | 385 | 0 | |
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 1,100V*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4133371 | *610137695* | ASE-TAIWN | COMP | 9 | 0 | |
| ***STRESS: ESD-CHARGE DEVICE MODEL, 500V*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4133371 | *610137695* | ASE-TAIWN | COMP | 9 | 0 | |
| ***STRESS: STATIC LATCH-UP TESTING, 125C, 10V, +/300mA*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | COMP | 3 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | COMP | 3 | 0 | |
| ***STRESS: AGE BOND STRENGTH*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | COMP | 5 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | COMP | 6 | 0 | |
| ***STRESS: HIGH TEMPERATURE STORAGE, PLASTIC, 150C*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4128335 | *610130788* | ASE-TAIWN | 500 | 48 | 0 | |
| CY7C0852V-BC(7C08523A) | 4128335 | *610130788* | ASE-TAIWN | 1000 | 48 | 0 | |

# Reliability Test Data

## QTP #: 014807

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: HIGH TEMP STEADY STATE LIFE TEST, 150C, 3.63V, Vcc MAX*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | 80 | 78 | 0 | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | 168 | 76 | 0 | |
| ***STRESS: PRESSURE COOKER TEST, 121C, 100%RH,, PRE COND 192 HR 30C/60%RH, MSL3*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | 168 | 47 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 168 | 48 | 0 | |
| ***STRESS: HI-ACCEL SATURATION TEST, 130C, 85%RH, 3.63V, PRE COND 192 HR 30C/60%RH, MSL3*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4131840 | *610135256* | ASE-TAIWN | 128 | 48 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 128 | 46 | 0 | |
| ***STRESS: TC COND. C -65C TO 150C, PRECONDITION 192 HRS 30C/60%RH, MSL3*** | | | | | | | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | 300 | 47 | 0 | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | 500 | 46 | 0 | |
| CY7C0852V-BC(7C08523A) | 4130707 | *610133760L1* | ASE-TAIWN | 1000 | 45 | 0 | |
| CY7C0852V-BC(7C08523A) | 4131841 | *610137123L1* | ASE-TAIWN | 300 | 46 | 0 | |

# Reliability Test Data

**QTP #: 012502**

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: ACOUSTIC-MSL3*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | COMP | 15 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | COMP | 15 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | COMP | 15 | 0 | |
| ***STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.3V, Vcc Max*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 36 | 500 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 36 | 988 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 36 | 1401 | 1 | NON VISUAL |
| ***STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-LATENT FAILURE RATE, 150C, 2.3V, Vcc Max*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 80 | 397 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 500 | 382 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 80 | 398 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 500 | 398 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 80 | 795 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 500 | 794 | 0 | |
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610134485* | CSPI-R | COMP | 9 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | COMP | 9 | 0 | |
| ***STRESS: ESD-CHARGE DEVICE MODEL, 500V*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610134485* | CSPI-R | COMP | 9 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | COMP | 9 | 0 | |
| ***STRESS: STATIC LATCH-UP TESTING, 125C, 10V, +/300mA*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610134485* | CSPI-R | COMP | 3 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | COMP | 3 | 0 | |
| ***STRESS: DYNAMIC LATCH-UP TESTING, 5.5V*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | COMP | 15 | 0 | |
| ***STRESS: AGE BOND STRENGTH*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | COMP | 15 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | COMP | 15 | 0 | |

# *Reliability Test Data*

**QTP #: 012502**

| *Device* | *Fab Lot #* | *Assy Lot #* | *Ass Loc* | *Duration* | *Samp* | *Rej* | *Failure Mechanism* |
|---|---|---|---|---|---|---|---|
| ***STRESS: HIGH TEMPERATURE STORAGE, PLASTIC, 150C*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 500 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 1000 | 48 | 0 | |
| ***STRESS: HIGH TEMP STEADY STATE LIFE TEST, 150C, 3.63V, Vcc MAX*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 80 | 83 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 168 | 83 | 0 | |
| ***STRESS: LOW TEMPERATURE OPERATING LIF,-30C, 3.25V*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 500 | 47 | 0 | |
| ***STRESS: TC COND. C -65C TO 150C, PRECONDITION 192 HRS 30C/60%RH, MSL3*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 300 | 47 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 500 | 47 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 1000 | 47 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 300 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 500 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 1000 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 300 | 50 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 500 | 50 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 1000 | 50 | 0 | |
| ***STRESS: PRESSURE COOKER TEST, 121C, 100%RH,, PRE COND 192 HR 30C/60%RH, MSL3*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4131928 | *610132955* | CSPI-R | 168 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 168 | 48 | 0 | |
| ***STRESS: HI-ACCEL SATURATION TEST, 130C, 85%RH, 2.75V, PRE COND 192 HR 30C/60%RH, MSL3*** | | | | | | | |
| CY7C1354BV25-AC (7C1354B) | 4132009 | *610137503* | CSPI-R | 128 | 48 | 0 | |
| CY7C1354BV25-AC (7C1354B) | 4134403 | *610144437* | CSPI-R | 128 | 46 | 0 | |

# Reliability Test Data

## QTP #: 022610

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: HIGH TEMP DYNAMIC OPERATING LIFE-EARLY FAILURE RATE, 150C, 2.3V, Vcc Max*** | | | | | | | |
| CY7C1354BV25-AC (7C13542B) | 4220687 | *610239285* | CSPI-R | 48 | 1777 | 0 | |
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V*** | | | | | | | |
| CY7C1354BV25-AC (7C13542B) | 4220687 | *610239285* | CSPI-R | COMP | 9 | 0 | |
| ***STRESS: ESD-CHARGE DEVICE MODEL, 500V*** | | | | | | | |
| CY7C1354BV25-AC (7C13542B) | 4220687 | *610239285* | CSPI-R | COMP | 9 | 0 | |
| ***STRESS: STATIC LATCH-UP TESTING, 125C, 10V, +/300Ma*** | | | | | | | |
| CY7C1354BV25-AC (7C13542B) | 4220687 | *610239285* | CSPI-R | COMP | 3 | 0 | |

# Reliability Test Data

**QTP #: 024903**

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V*** | | | | | | | |
| CY7C13562BV25-AC (7C13562B) | 4220626 | *610248377* | CMLR | COMP | 9 | 0 | |
| ***STRESS: ESD-CHARGE DEVICE MODEL, 500V*** | | | | | | | |
| CY7C13562BV25-AC (7C13562B) | 4220626 | *610248377* | CMLR | COMP | 9 | 0 | |
| ***STRESS: STATIC LATCH-UP TESTING, 125C, 10V, +/300mA*** | | | | | | | |
| CY7C13562BV25-AC (7C13562B) | 4220626 | *610248377* | CMLR | COMP | 3 | 0 | |

# Reliability Test Data

**QTP #: 042305**

| Device | Fab Lot # | Assy Lot # | Ass Loc | Duration | Samp | Rej | Failure Mechanism |
|---|---|---|---|---|---|---|---|
| ***STRESS: ESD-CHARGE DEVICE MODEL, 500V*** | | | | | | | |
| CY7C1360B (7C13600R) | 4413001 | 610431305 | CML-R | COMP | 9 | 0 | |
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER JESD22, METHOD A114-B, 2,200V*** | | | | | | | |
| CY7C1360B (7C13600R) | 4413001 | 610431305 | CML-R | COMP | 9 | 0 | |
| ***STRESS: ESD-HUMAN BODY CIRCUIT PER MIL STD 883, METHOD 3015, 2,200V*** | | | | | | | |
| CY7C1360B (7C13600R) | 4413001 | 610431305 | CML-R | COMP | 3 | 0 | |
| ***STRESS: STATIC LATCH-UP TESTING, 125C, 7.5V, +/300mA*** | | | | | | | |
| CY7C1360B (7C13600R) | 4413001 | 610431305 | CML-R | COMP | 3 | 0 | |