JSCJ

# Mean Time To Failure Report

Report NO.: M-F00723

**Part Number: CJ3407M2**

**Package Type: SOT-23**

## 1.Reliability Test Method And Description:

| | |
|---|---|
| Stress Test Item: | HTRB |
| Test Duration (Hours): | 1000 |
| Sample Q'ty (Pcs): | 77 |
| Failure Q'ty (Pcs): | 0 |
| Total Device Hours (Hrs): | 77000 |
| Accelerated Temp. (Ta)(°C): | 150 |
| Normal Operation Temp. (Tu)(°C): | 55 |
| Eactivation Energy (Ea): | 0.7 |
| K (Boltzmans Constant): | 8.617164E-5 eV/°K |
| Chi-Square Constant @confidence level:60% (chi): | 1.833 |
| Chi-Square Constant @confidence level:90% (chi): | 4.605 |

Acceleration Factor ,Af at Tu list:

| Tu | 55℃ | 85℃ | 100℃ | 125℃ | 150℃ |
|---|---|---|---|---|---|
| Af | 259.2 | 32.6 | 13.1 | 3.3 | 1.0 |

## 2.Results(Use Conditions Tu=55℃ & confidence level:90%):

| | | |
|---|---|---|
| Failure Rate FIT (@Operation Condition): | 115.4 | FIT |
| Mean Time to Failure (MTTF): | 8668504 | Hours |
| | 990 | Years |

## 3.MTTF/FIT Calculate Equations:

| | |
|---|---|
| Af | exp[(Ea/K)*(1/(Tu+273.15)-1/(Ta+273.15))] |
| FIT @ Operation Condition | Chi*10^9/(2*Hrs*Af) |
| MTTF Hours | 10^9/FIT |
| MTTF Years | 10^9/(FIT*24*365) |

Remark: JSCJ Laboratory reserves the right of final interpretation of this report