

Part Number: CJAC110SN10L

PN Family: 100V SMDs/MOSFET

Package Type: PDFNWB5x6-8L

1. Reliability Test Method And Description:

Stress Test Item :	HTRB
Test Duration (Hours)	1000
Sample Q'ty (Pcs) :	231
Failure Q'ty (Pcs) :	0
Total Device Hours (Hrs) :	231000
Accelerated Temp (Ta)(°C) :	150
Normal Operation Temp. (Tu)(°C) :	55
Eactivation Energy (Ea) :	0.7
K (Boltzmanns Constant) :	8.617E-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°C	85°C	100°C	125°C	150°C
Af	260.4	32.7	13.1	3.3	1.0

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

Failure Rate FIT(@Operation Condition):	38.3	FIT
Mean Time to Failure (MTTF):	26124947.5	Hours
	2982.3	Years

3. MTTF/FIT Calculate Equations:

AF	$\exp\left[\frac{Ea}{K} \left(\frac{1}{Tu+273} - \frac{1}{Ta+273} \right)\right]$
FIT @ Operation Condition	$\text{Chi}^2 \cdot 10^9 / (2 \cdot \text{Hrs} \cdot \text{AF})$
MTTF hours	$10^9 / \text{FIT}$
MTTF years	$10^9 / (\text{FIT} \cdot 24 \cdot 365)$

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