

Reliability Report: DS1921

Process: Single Poly, Double Metal (Ti/TiN layers used on all Metals) 0.6 μm Standard Process

Metal: Al / 0.5% Cu / 0.8% Si Gate Ox Thickness: 150 Å Passivation: TEOS Oxide / Nitride

Summary Data with Chi-Square Distribution Assumed.
Stress Ambient Temperature and Voltage to
Field Ambient Temperature And Voltage

Cf: 60% Tuse: 25 °C
Ea: 0.7 Vuse: 5.5 Volts
β: 1 Pin Count: 8

Assembly: ATP (Amkor, PI)
Package: PDIP
Body Size: 300

DESCRIPTION	VEHICLE	REV	DATE CODE	CONDITION	READPOINT	QUANTITY	FAILS	FILE #	DEVICE HRS
HIGH TEMPERATURE OPERATING LIFE									
HIGH VOLTAGE LIFE	DS1921	A6	0043	125C, 6.0 VOLTS	48	HOURS	225	0	16794212
	DS1921	A6	0043	125C, 6.0 VOLTS	336	HOURS	80	0	35827652
	DS1921	A6	0043	125C, 6.0 VOLTS	1000	HOURS	79	1 26953	81570110
				FAILURE RATE	MTBF (yrs):		TOTALS:		
					1.34E+08		1		
					7575		FITS: 15		
TEMPERATURE HUMIDITY BIAS									
BIASED MOISTURE	DS1921	A5	0024	85/85, 5.5 VOLTS	274	HOURS	30	0	
BIASED MOISTURE	DS1921	A6	0043	85/85, 5.5 VOLTS	274	HOURS			
							TOTALS:	0	
TEMPERATURE CYCLE									
TEMP CYCLE	DS1921	A5	0024	-40 TO 85C	300	CYCLE	30	0	
TEMP CYCLE	DS1921	A6	0043	-40 TO 85C	300	CYCLE			
							TOTALS:	0	
STORAGE LIFE									
STORAGE LIFE	DS1921	A5	0024	85C	336	HOURS	30	0	
STORAGE LIFE	DS1921	A6	0043	85C	336	HOURS			

Reliability Report:

Process:

Metal: Gate Ox Thickness: Passivation:

Summary Data with Chi-Square Distribution Assumed. Stress Ambient Temperature and Voltage to Field Ambient Temperature And Voltage	Cf: <input type="text" value="60%"/>	Tuse: <input type="text" value="25 °C"/>	Assembly: <input type="text" value="ATP (Amkor, PI)"/>
	Ea: <input type="text" value="0.7"/>	Vuse: <input type="text" value="5.5 Volts"/>	Package: <input type="text" value="PDIP"/>
	β: <input type="text" value="1"/>	Pin Count: <input type="text" value="8"/>	Body Size: <input type="text" value="300"/>

DESCRIPTION	VEHICLE	REV	DATE	CODE	CONDITION	READPOINT	QUANTITY	FAILS	FILE #	DEVICE	HRS
TOTALS:								0			

<u>FILE #</u>	<u>FAILURE MODE</u>	<u>FAILURE MECHANISM</u>
26953	FAIL_DLOG_MISREAD	UNKNOWN

<u>PRODUCT</u>	<u>REV</u>	<u>DIE SIZE (x)</u>	<u>DIE SIZE (y)</u>	<u>No. of Transistors</u>
DS1921	A6	174	140	82000