

Reliability Report: DS1921/H/Z, Rev B2/B1

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

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

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

Cf: 60% Tuse: 55 °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	B2	0139	85 C, 6.0 VOLTS	336 HOURS	80	0		353119
						DEVICE HRS: 3.53E+05	TOTALS:	0	
						FAILURE RATE	MTBF (yrs): 44	FITS:	2595

ELECTRICAL CHARACTERIZATION									
ESD SENSITIVITY	DS1921H	B1	0139	EOS/ESD S5.1 HBM 500 VOLTS		3	0		
ESD SENSITIVITY	DS1921H	B1	0139	EOS/ESD S5.1 HBM 1000 VOLTS		3	0		
ESD SENSITIVITY	DS1921H	B1	0139	EOS/ESD S5.1 HBM 2000 VOLTS		3	0		
ESD SENSITIVITY	DS1921H	B1	0139	EOS/ESD S5.1 HBM 4000 VOLTS		3	0		
ESD SENSITIVITY	DS1921H	B1	0139	EOS/ESD S5.1 HBM 8000 VOLTS		3	1	28134	
LATCH-UP	DS1921H	B1	0139	JESD78, I-TEST 125C		3	0		
LATCH-UP	DS1921H	B1	0139	JESD78, Vsupply TEST 125C		3	0		
						TOTALS:	1		

<u>PRODUCT</u>	<u>REV</u>	<u>DIE SIZE (x)</u>	<u>DIE SIZE (y)</u>	<u>No. of Transistors</u>
DS1921	B2	174	140	