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Texas Instruments Enhanced Plastic Products Reliability Report

(Subject To Attached Disclaimers)
SN74LVC8T245MPWREP

Package Related Tests

<u>Description</u>	<u>Condition</u>	<u>Referenced Method</u>	<u>Sample Size</u>	<u>Rejects</u>	
Biased Humidity or HAST	85°C / 85% / 1000 hours or 130°C / 85% / 96 hours	JESD22-A101 JESD22-A110	78/0	0	*
Autoclave	121°C @ 2 atmospheres absolute for 96 hours	JESD22-A102	229/0	0	*
Temperature Cycle	-65°C to +150°C non-biased for 500 cycles or equivalent	JESD22-A104	231/0	0	*
High Temp Storage	150°C / 1,000 hours	JESD22-A103-A	231	0	*

* Preconditioning per JEDEC Std. 22, Method A112/A113

Biased Life Test

Test Method: JESD22-A108

Test Condition: 125°C / 1000 hours

Rejects: 0

Activation Energy (eV): 0.7eV

Equivalent Device Hours: 1.853* E8

Failure Rate (FIT)*: 5.4

*Derated to +55°C with a 60% Confidence Level

Initial Product Qualification

Condition **Referenced Method** **Sample Size**

The subject Enhanced Plastic device, device family, and/or package family have passed Texas Instruments product qualification as follows:

Electrical Characterization	TI Data Sheet	N/A	30 units/lot
Electrostatic Discharge Sensitivity	HBM	EIA/JESD22-A114	3 units/voltage
Latch-up	MM Per Technology	EIA/JESD22-A115 EIA/JESD78	5/0
Physical Dimensions	TI Data Sheet	EIA/JESD22- B100	5/0
Bias Life Test	125°C / 1000 hours or equivalent	JESD22-A108	116/0
Biased Humidity	85°C / 85% / 1000 hours or	JESD22-A101	77/0
HAST	130°C / 85% / 96 hours	JESD22-A110	
Autoclave	121°C @ 2 atmospheres absolute for 96 hours	JESD22-A102	77/0
Temperature Cycle	-65°C to +150 °C non-biased for 1,000 cycles	JESD22-A104	77/0
Solder Heat	260°C for 10 seconds	JESD22-B106	22/0
Solderability	Condition A (steam age for 8 hours)	ANSI/J-STD-002-92	22/0
Bond Strength	-	ASTM F-459	76/0 wires
High Temp Storage	150°C / 1,000 hours	JESD22-A103-A	45/0
Moisture Sensitivity	Surface Mount Only	J-STD-020-A	12/0

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