

Texas Instruments Qualification Summary

Quality and reliability are built into TI's culture, with the goal of providing customers high quality products. TI's semiconductor technologies are developed with a minimum goal of fewer than 50 Failures in Time (FIT) at 100,000 Power-On-Hours at 105C junction temperature. TI builds simulations, accelerated testing, and robustness evaluations into the product development process. During the product development process, TI carefully assesses silicon process reliability, package reliability, and silicon/package interaction.

TI also evaluates manufacturability of the device to verify a robust silicon and assembly flow to enable continuity of supply to customers. Non-Automotive devices are qualified with industry standard test methodologies performed primarily to the intent of the Joint Electron Devices Engineering Council (JEDEC). TI qualifies new devices, significant changes, and product families based on JEDEC JESD47. The data shown is representative of the material sets, processes, and manufacturing sites used by the device family.

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Qualification summary for:	SN74LVC1G00DCKR
Report date:	12/30/2024

Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
HTOL	JESD22-A108	3	77	Life test, 125C	1000 hours	Pass	Or equivalent JED EC condition
HTSL	JESD22-A103	3	25	High temp storage bake, 150C	1000 hours	Pass	Or equivalent JED EC condition
AC/UHAST	JESD22-A102/JESD22-A118	3	25	Unbiased HAST 130C / 85% RH	96 hours	Pass	Or equivalent JED EC condition
THB/HAST	JESD22-A101/JESD22-A110	3	25	HAST 130C/85%RH	96 hours	Pass	Or equivalent JED EC condition
TC	JESD22-A104	3	25	Temperature cycle -65/150C	500 cycles	Pass	Or equivalent JED EC condition
SD	J-STD-002	3	22	Per specification	>95% lead coverage	Pass	
HBM	JS-001	1	3	ESD - HBM	Classification	See data sheet	

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Stress	Reference	Min lot qty	SS / lot	Condition	Duration	Result	Notes
CDM	JS-002	1	3	ESD - CDM	Classification	See data sheet	
LU	JESD78	1	3	Latch-up	Per JESD78	Pass	As applicable per JESD78
MSL	J-STD-020	—	—	Per J-STD-020	Classification	See data sheet	

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