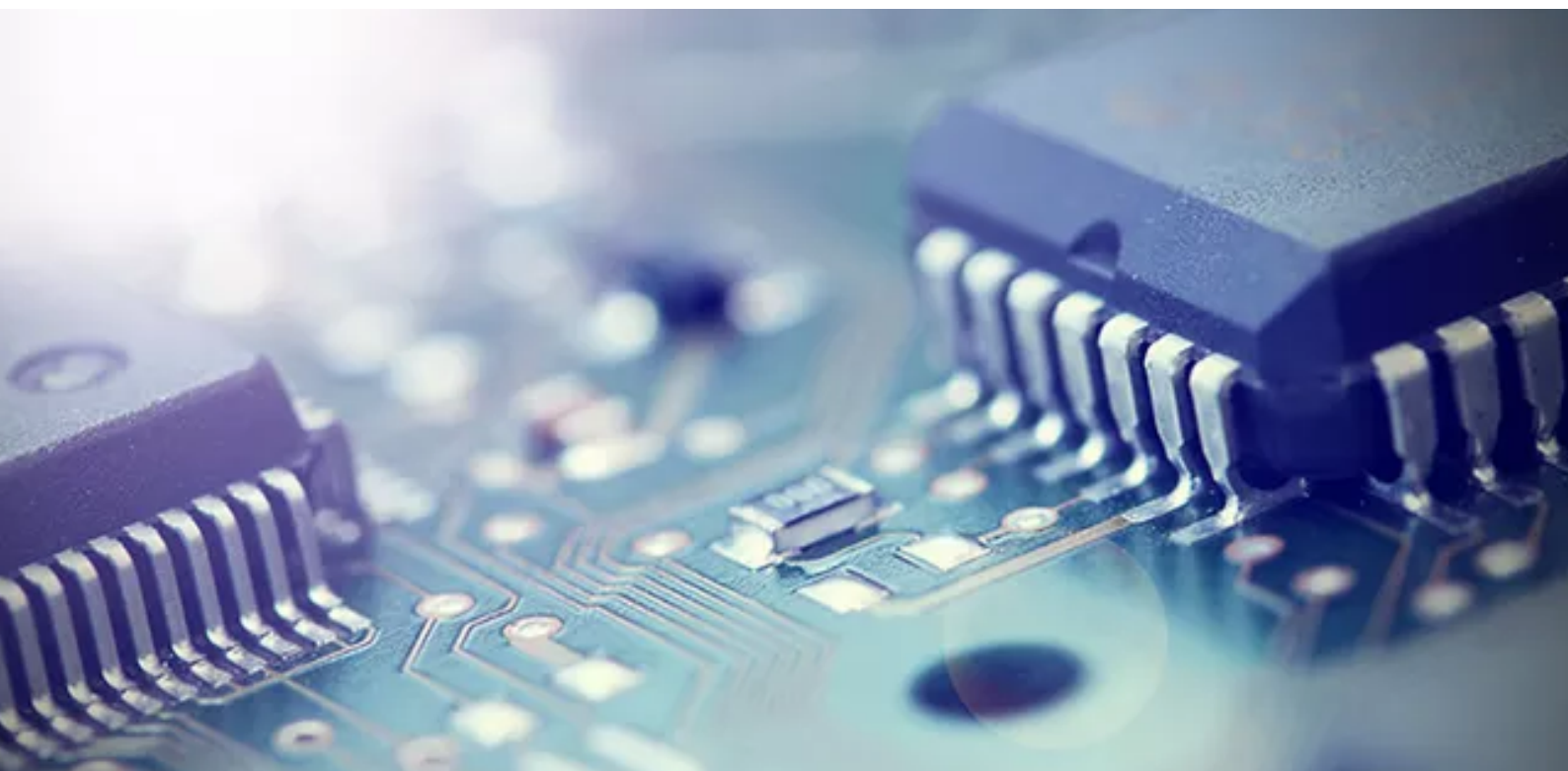




SanQuan INSTRUMENTS



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Reliability Report

For

RT9701

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RT9701 是一个 $100\text{m}\Omega$ 电源开关，设计用于自供电 (self-powered) 和总线供电 (bus-powered) 的通用串行总线 (USB) 应用。一个内置的电荷泵来驱动没有寄生 body-diode 的 N-Channel MOSFET 来消除关机时的任何反向电流。IC 的低静态电流 ($23\ \mu\text{A}$) 和小封装 (SOT-23-5) 特别适合电池供电的便携式设备。多种保护功能，包括限制插件时的涌入电流、输出 1.5A 下符合 USB 规范的限电流和过电流情形下的过热保护。

应用

- 电池供电设备
- 主板 USB 电源开关
- USB 装置电源开关
- 热插入电源
- 电池充电器电路

**Purpose**

- The HTOL test is to demonstrate the quality or reliability of device subjects to the specified conditions over an extended time period.
- The ESD tests are used to classify the electrostatic discharge of microcircuits.
- The latch-up test is used to check IC latch-up characteristics.
- The environment tests are to ensure the process of assembly of this package type that meets SANQUAN quality specifications.

Test Items and Conditions

Items	Condition	Readout	Q'ty	Rejects	Reference
HTOL	T _a =125°C, VIN=1.1*VIN_MAX	1000 hours	77	0	JESD22-A108
ESD	HBM	--	3/ VOLT	0	JESD22-A114
	MM	--	3/ VOLT	0	JESD22-A115
	CDM	--	3/ VOLT	0	JESD22-C101
Latch-up	I-TEST	--	9	0	JESD78A
	V-TEST				
Preconditioning MSL-3					
Bake	125°C	24 hours	385	0	JESD22-A113
MSL-3 Soaking	30°C / 60% RH	192 hours	385	0	
Reflow	260 +0/-5°C	3 cycles	385	0	
HTST	T _a =150°C	1000 hours	77	0	JESD22-A103
THT	T _a =85°C, 85%RH	1000 hours	77	0	JESD22-A101
TCT	T _a =-65°C ~ 150°C	500 cycles	77	0	JESD22-A104
PCT	T _a =121°C, 100%RH, 2ATM	168 hours	77	0	JESD22-A102
uHAST	T _a =130°C, 85%RH	96 hours	77	0	JESD22-A118

- NOTE:**
1. Preconditioning MSL-3 test was done before HTST, THT, TCT, PCT and uHAST tests.
 2. All assembly houses are SANQUAN qualified suppliers.

Summary

- The test results can be applied to all of the products including a series of RT9701.
- Any questions or inquiries for regarding related products or service of SANQUAN, you may contact us through our technical support center.
(<http://www.SANQUAN.com/contact10.1.jsp>)