

Rejutor™ Reliability

Microbridge strives to achieve best-in-class quality and reliability in all Rejutor products by working with industry leaders in the manufacturing, assembly, testing and quality monitoring and verification industries. Every effort is made to ensure customers realize the benefits that the revolutionary Rejutor products can afford in their application. Quality is built-in at the design phase, tested through strict PCM monitoring at ISO-registered manufacturing facilities and validated at final test. Microbridge verifies Rejutor reliability through independent third-party testing at certified test houses.

Microbridge offers Rejutor products in diverse market areas and due to the unique characteristics of each application, product is subjected to custom qualification plans wherever possible. Consult Microbridge regarding specific qualification tests not listed below.

Qualification/Reliability Data

Test	Test Conditions	Result
Shock	500G, 1msec duration, XYZ axis 5 shocks each. Total 15 shocks per unit	0/22 parts failed.
Vibration	Max acceleration 20G, 20~2000~20Hz, over 8 min, X,Y,Z axis each 4 sweeps. Total 12 sweeps per unit.	0/22 parts failed.
ESD	Electrostatic Discharge (ESD) Sensitivity Testing Human Body Model (HBM). All pin combinations tested per JESD22-A114D	Class 1A (250V)
Moisture Sensitivity	Tested per J-STD-020C	MSL1, 260°C convection reflow for SOIC-8 and QFN-16 packages
Preconditioning	150°C, 24 hrs. as per JESD22-A113E	0/77 parts failed drift specification of 0.6% at 1000 hrs.
High temperature storage	150 °C, 1000h as per JESD22-A103C	0/77 parts failed drift specification of 0.6% at 1000 hrs.
Thermal Cycling	-65°C to 125°C, 1000 cycles at 2 cycles per hour as per JESD22-A104B	0/77 parts failed drift specification of 0.6% at 1000 cycles
Rated overload testing	Rated Voltage x2.5, 5sec. MIL-R-55342H Par 4.8.6	0/24 parts failed. All parts had no detectable drift
Operating Life	125°C, static bias as per JESD22-A108C	0/22 fail drift under full 1 mW operating bias after 1000 hours.
Humidity Testing	85°C, 85% Rh, 1000 hrs. as per JESD22-A101B	0/22 fail resistance drift specification of 1% after test.
Arrhenius Calculation for E _a and MTTF	Accelerated aging at 125°C, 150°C, 175°C to characterize failure rate and predict MTTF.	0/169 parts failed after 4000 hours aging at 125°C, 150°C, 175°C and 200°C. Resistance changes observed correspond to intermetallic formation at Au-Al bondpads used in testing.

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