

Reliability Datasheet

Description

The following cumulative test results have been obtained from testing performed at Avago Technologies Malaysia in accordance with the latest revisions of IEC68.

Avago tests parts at the absolute maximum rated conditions recommended for the device. The actual performance you obtain from Avago parts depends on the electrical and environmental characteristics of your application but will probably be better than the performance outlined in Table 1.

Table 1. Life Tests

Test Name	Reference	Test Conditions	Unit Tested	Unit Failed
Dry Heat	IEC68-2-2	After storage at maximum Operation temperature (110°C) for 500 hours with charge voltage of 5.0 V, Measured in Room Temperature	22	0
Damp Heat Steady State	IEC68-2-3	Stored in 40°C & RH 93% for 500 hours with charge voltage of 5.0 V, measured in Room Temperature	10	0
Cold Test	IEC68-2-1	After storage at minimum Operation temperature (-40°C) for 500 hours with Charge voltage of 5.0 V, Measured in Room Temperature	10	0

Table 2. Environmental Tests

Test Name	Reference	Test Conditions	Unit Tested	Unit Failed
Change of Temperature	IEC68-2-14Nb	-55(30min)-(3min)-+125(30min) After 250 cycles measured in Room Temperature	15	0
Change of Temperature	IEC68-2-14Na	-55°C (30min)-(<3min)-+125°C (30min) After 200 cycles measured in Room Temperature	3	0

Table 3. Mechanical Tests

Test Name	Reference	Test Conditions	Unit Tested	Unit Failed
Vibration Test (Non-operating)	IEC68-2-6	2-2000Hz at 10G 10cycles/axis for X, Y & Z direction Measured in Room Temperature (Encoder only)	3	0
Mechanical Shock (Non-operating)	IEC68-2-27	100G at 6msec half sine pulse at X, Y & Z direction, total 18 shocks Measured in Room Temperature (Encoder only)	3	0
Packaging Drop Test (Non-operating)	ASTM-D-5276	42 inches drop height for carton weight 0-4.5kg with total 26 drops with each drop for all faces, corners, edges	3	0

Table 4. Electrical Tests

Test Name	Reference	Test Conditions	Unit Tested	Unit Failed
Electrostatic Discharge	IEC61000-4-2	Charged at +/-6Kv, 10 pulses/pin/level contact discharge and +/-8Kv air discharge. Measured in Room Temperature	3	0

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