

AS38-H39E Series

39 Bits Multi-Turn Absolute Housed Encoder

Description

The following cumulative test results have been obtained from testing performed at Broadcom Malaysia in accordance with IEC68 standards. Broadcom tests parts at the absolute maximum characteristics of the rated conditions recommended for the device. The actual performance obtained from Broadcom® parts in your application depends on the electrical and environmental conditions but will probably be better than the performance outlined in [Table 1](#).

Table 1: Life Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Dry Heat	IEC60068-2-2	After storage at maximum operation temperature (125°C) for 1000 hours with charge voltage of 5.5V, measured at room temperature	72	0
Damp Heat Steady State	IEC60068-2-78	Stored in 85°C, RH = 85% for 1000 hours with charge voltage of 5.5V, measured at room temperature	3	0
Cold Test	IEC60068-2-1	After storage at minimum operation temperature (–40°C) for 1000 hours with charge voltage of 5.5V, measured at room temperature	3	0

Table 2: Environment Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Change of Temperature	IEC60068-2-14Nb	–45°C to 125°C, 30 minutes dwell time, ramp rate: 15°C/ min. After 1000 cycles, measured at room temperature.	5	0

Table 3: Electrical Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Electrostatic Discharge Immunity Test	IEC61000-4-2	Contact discharge at 6 Kv at 10 pulses each.	3	0
		Air discharge at 8kV at 10 pulses each.	3	0
		Measured at room temperature.		

Table 4: Mechanical Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Mechanical Shock Test (nonoperating)	IEC60068-2-27	200G at 6 ms half-sine pulse. 3 successive shocks in each direction of 3 perpendicular axes of units. Measured at room temperature.	3	0
Vibration Test (nonoperating)	IEC60068-2-6	10 Hz to 2000 Hz at 10G. 20 cycles per 3 perpendicular axes of units, 20 minutes/sweep. Measured at room temperature.	3	0

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