

AR25-AS0x/AB0x

Smart Programmable 25-Bit Reflective Absolute Single-Turn Encoder

Description

The following cumulative test results have been obtained from testing performed at Broadcom[®] in accordance with the latest revisions of the JEDEC standard. Broadcom tests parts at the absolute maximum rated conditions recommended for the device. The actual performance you obtain from Broadcom 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	Units Tested	Units Failed
High Temperature Operating Life	JESD22A-108	Ta = 125°C for 1000 hours, VDD = 5.0V ± 0.5V	388	0
Temperature Humidity Bias	JESD22A-101	Preconditioning + Ta = 85°C, RH = 85% for 1000 hours, VDD = 5.0V ± 0.5V	58	0
Low Temperature Operating Life	JESD22A-108	Ta = -40°C for 1000 hours, VDD = 5.0V ± 0.5V	60	0

Table 2: Environmental Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Temperature Cycling	JESD2-A104 JESD22-A113	-40°C to 125°C (Condition G), Preconditioning + 1000 cycles	170	0
High Temperature Storage Life	JESD22-A103	Ta = 150°C for 1000 hours	25	0
Unbiased HAST	JESD22-A118	Preconditioning + Ta = 130°C, RH = 85% for 96 hours	10	0

Table 3: Mechanical Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Vibration Variable Frequency	JESD22-B103	20g, 20 Hz to 2000 Hz, 4 cycles/axis	3	0
Mechanical Shock	JESD22-B104	5 shocks, 0.5 ms duration, 1500g peak acceleration	3	0

Table 4: Electrical Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Human Body Model ESD	JS-001	2000V	3	0
Charged Device Model ESD	JS-002	1000V	3	0
Latch-Up	JESD78	Class II (+100 mA, 1.5 x VDDmax @ 125°C)	3	0

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