

Reliability Data Sheet

Description

The following cumulative test results have been obtained from testing performed at Broadcom in accordance with the JEDEC standards.

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 the following tables.

Table 1 Product Information

Red	Green	Yellow	Orange	AlGaAs Red	Description
HDSP-H3E1	HDSP-H3G1	HDSP-H3Y1	HDSP-H3L1	HDSP-H3A1	Common Anode, Right Hand Decimal
HDSP-H3E3	HDSP-H3G3	HDSP-H3Y3	HDSP-H3L3	HDSP-H3A3	Common Cathode, Right Hand Decimal

Table 2 Environmental Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Temperature Cycle	JESD22-A104	-40°C/85°C, 15 minute dwell, 5 minute transfer, 100 cycles	300	0
High Temperature High Humidity Operating Life	JESD22-A101	85°C/85% RH, 5 mA, 500 hours	26	0
High Temperature High Humidity Storage Life	JESD22-A103	85°C/85% RH, 500 hours	26	0
Low Temperature Operating Life	JESD22-A108	-40°C, 25 mA, 500 hours	26	0
High Temperature Operating Life	JESD22-A108	85°C, 5 mA, 500 hours	26	0

Table 3 Mechanical Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Mechanical Shock	JESD22-B104	1500G for 0.5 ms, 5 shocks each, ± X, Y, and Z	30	0
Solderability	JESD22-B102	8 hours steam age, solder dip @ 245°C for 5 sec	30	0
Marking Permanency	JESD22-B107	3x immersions /10 strokes, pass solution A and C	12	0
Drop Test	JESD22-B111	1.2 meter drop on ceramic, concrete or steel surface, 10x drop	30	0

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