

HLMP-Yxxx

3-mm LED Lamps

Description

Broadcom tests parts at the absolute maximum rated conditions recommended for the device. The actual performance that 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 table.

Table 1: Reliability Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
High Temperature Operating Life	JESD22-A108	$T_A = 100^{\circ}\text{C}$, $I_F = 7\text{ mA}$ for 1000 hours	56	0
Low Temperature Operating Life	JESD22-A108	$T_A = -40^{\circ}\text{C}$, $I_F = 20\text{ mA}$ for 1000 hours	56	0
Temperature Humidity Operating Life	JEITA ED-4701/100 102	$T_A = 85^{\circ}\text{C}$, 85% RH, $I_F = 17\text{ mA}$ for 500 hours	56	0
Temperature Cycle	JESD22-A104	$-40^{\circ}\text{C}/100^{\circ}\text{C}$, 15-minute dwell, 5-minute transfer, 100 cycles	336	0
High Temperature Storage Life	JESD22-A103	$T_A = 100^{\circ}\text{C}$ for 1000 hours	56	0
Low Temperature Storage	JESD22-A119	$T_A = -40^{\circ}\text{C}$ for 1000 hours	56	0
Temperature Humidity Storage Life	JEITA ED-4701/100 103	$T_A = 85^{\circ}\text{C}$, 85% RH for 1000 hours	56	0
Solderability	J-STD-002	245°C for 5 seconds	28	0
Solder Heat Resistance	JESD22-B106	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for 10 seconds ± 5 seconds	28	0

NOTE: A failure is any LED that is open or shorted or that failed to emit light (except for the Solderability test).

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