

ASMB-TTB0

High-Brightness Tall Black Surface PLCC-6 Tricolor LED

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°C (3 chips on), AllInGaP Red I _F = 6 mA for 1000 hours InGaN Green/Blue I _F = 4 mA for 1000 hours	56	0
Low Temperature Operating Life	JESD22-A108	T _A = -40°C (3 chips on), AllInGaP Red I _F = 50 mA for 1000 hours InGaN Green/Blue I _F = 35 mA for 1000 hours	56	0
Temperature Humidity Operating Life	JEITA ED- 4701/ 100 102	T _A = 60°C, 90% RH (3 chips on), AllInGaP Red I _F = 31 mA for 500 hours InGaN Green/Blue I _F = 21 mA for 500 hours	56	0
Temperature Cycle	JESD22-A104	-40°C/100°C, 30-minute dwell, 5-minute transfer, 100 cycles	336	0
High Temperature Storage Life	JESD22-A103	T _A = 100°C for 1000 hours	56	0
Low Temperature Storage	JESD22-A119	T _A = -40°C for 1000 hours	56	0
Temperature Humidity Storage Life	JEITA ED- 4701/ 100 103	T _A = 60°C, 90% RH for 1000 hours	56	0
Pulse Test	JESD22-A108	T _A = 25°C, frequency = 1 kHz, peak current = 100 mA, duty factor = 10% for 1000 hours	56	0
Solderability	J-STD-002	245°C for 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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