

## ASMB-TTF0/ASMB-TTF2

### 3735 Tricolor PLCC6 LED

## Description

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

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: Environmental Tests**

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Temperature Cycle	Broadcom Requirements	–40°C/100°C, 30-minute dwell, 5-minute transfer, 100 cycles	768	0
High Temperature Operating Life	JESD22-A108	T <sub>A</sub> = 100°C (3 Chip On) AlInGaP Red: I <sub>F</sub> = 4 mA for 1000 hours InGaN Green: I <sub>F</sub> = 3 mA for 1000 hours InGaN Blue: I <sub>F</sub> = 2 mA for 1000 hours	56	0
Temperature Humidity Operating Life	Broadcom Requirements	T <sub>A</sub> = 60°C, 90% RH (3 Chip On) AlInGaP Red: I <sub>F</sub> = 30 mA for 500 hours InGaN Green: I <sub>F</sub> = 19 mA for 500 hours InGaN Blue: I <sub>F</sub> = 18 mA for 500 hours	56	0
Temperature Humidity Storage Life	Broadcom Requirements	T <sub>a</sub> = 60°C, 90% RH for 1000 hours	56	0
Low Temperature Storage	JESD22-A119	T <sub>a</sub> = –40°C for 1000 hours	56	0
High Temperature Storage	JESD22-103	T <sub>a</sub> = 100°C for 1000 hours	56	0
Low Temperature Operating Life	JESD22-A108	T <sub>A</sub> = –40°C (3 Chip On) AlInGaP Red: I <sub>F</sub> = 50 mA for 1000 hours InGaN Green: I <sub>F</sub> = 30 mA for 1000 hours InGaN Blue: I <sub>F</sub> = 30 mA for 1000 hours	56	0
Pulse Test	Broadcom Requirements	T <sub>A</sub> = 25°C, Duty factor = 10%, 100 mA, Frequency = 1 kHz, 1000 hours	56	0

**Table 2: Other Tests**

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Mechanical Shock	JESD22-B104	5 shocks each X1, X2, Y1, Y2, Z1, Z2, 2900G, 0.3-ms pulse	28	0
Vibration	JESD22-B103	4 cycles, 4 minutes each X, Y, and Z at 0.06 in. at 20 Hz–200 Hz, Peak acceleration 20G	28	0
Solderability	JESD22-B102	245°C for 5 seconds	28	0

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

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