

## HSM8-C320, HSM9-C320

### Top-Mount Infrared Emitter

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## 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	$T_A = 55^\circ\text{C}$ , $I_F = 45 \text{ mA}$ for 1000 hours	56	0
Low Temperature Operating Life	JESD22-A108	$T_A = -40^\circ\text{C}$ , $I_F = 70 \text{ mA}$ for 1000 hours	56	0
Temperature Humidity Operating Life	JEITA ED- 4701/ 100 102	$T_A = 60^\circ\text{C}$ , 90% RH, $I_F = 40 \text{ mA}$ 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 Life	JESD22-A119	$T_A = -40^\circ\text{C}$ for 1000 hours	56	0
Temperature Humidity Storage Life	JEITA ED- 4701/ 100 103	$T_A = 60^\circ\text{C}$ , 90% RH for 1000 hours	56	0
Pulse Test	JESD22-A108	$T_S = 25^\circ\text{C}$ , frequency = 100 Hz, peak current = 350 mA, duty factor = 1% for 500 hours	56	0
Mechanical Shock	JESD22-B104	5 shocks each X1, X2, Y1, Y2, Z1, Z2, 1500G, 0.5-ms pulse	28	0
Vibration	JESD22-B103	4 cycles, 4 minutes each X, Y, and Z at 0.06 in. at 20 Hz to 2000 Hz, peak acceleration 20G	28	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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