



14.2 mm (0.56 inch) Dual Digits General Purpose Seven Segment Displays

Reliability Data

**HDSP-521E, -523E
HDSP-521G, -523G**

Description

The following cumulative test results have been obtained from testing performed at Agilent Technologies Optoelectronics Division in accordance with the latest revision of MIL-STD-883.

Agilent tests parts at or beyond the absolute maximum rated conditions recommended for the device. The actual performance you obtain from Agilent parts depends on the electrical and environmental characteristics of

your application but will probably be better than the performance outlined in Table 1.

**Table 1. Life Tests
Demonstrated Performance**

Colors	Stress Test	Stress Test Conditions	Total Device Hours	Units Tested	Total Failed
High Efficiency Red and Green	Low Temperature Operating Life	T _A = -35°C I _F = 25 mA	84,000	84	0
High Efficiency Red and Green	High Temperature Operating Life	T _A = 55°C I _F = 15 mA	84,000	84	0
High Efficiency Red and Green	Wet High Temperature Operating Life	T _A = 85°C R.H. = 85% I _F = 5 mA	84,000	84	0

Table 2. Environmental Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Solder Heat Resistance	HP Internal Test	Solder wave at 250°C for total of 5 seconds and 5 Temperature Cycles per MIL-STD-883 Method 1010.	2500	0 ppm
Temperature Cycle	MIL-STD-883 Method 1010	-35°C to +85°C, 15 min. dwell, 5 min. transfer, 20 cycles 50 cycles	400 400	0 1
Humidity Storage	JIS C 7021 Method B-11	85°C, 85% RH, 1000 Hours	84	0
Solderability	MIL-STD-883 Method 2003	16 hours steam aging followed by solder dip at 260°C for 5 seconds.	40	0



Agilent Technologies

Innovating the HP Way

www.semiconductor.agilent.com

Data subject to change.

Copyright © 1999 Agilent Technologies

5968-7189E (11/99)