



10 mm 1 Digit Slim Font Display

Reliability Data Sheet

Agilent
HDSP-301G/HDSP-303G
HDSP-301E/HDSP-303E
HDSP-301Y/HDSP-303Y
HDSP-301A/HDSP-303A

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.

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 Hrs.	Units Tested	Units Failed	Point Typical Performance	
						MTBF	Failure Rate (% /1K Hours)
Yellow	High Temperature Operating Life	$T_A = +55^{\circ}\text{C}$, $I_F = 20\text{ mA}$	10,500	21	0	10,500	< 9.52
HER, Green	High Temperature Operating Life	$T_A = +55^{\circ}\text{C}$, $I_F = 30\text{ mA}$	21,000	42	0	21,000	< 4.76
AlGaAs	High Temperature Operating Life	$T_A = +55^{\circ}\text{C}$, $I_F = 15\text{ mA}$	10,500	21	0	10,500	< 9.52
HER, Green and Yellow	Low Temperature Operating Life	$T_A = -40^{\circ}\text{C}$ $I_F = 30\text{ mA}$ for HER & Green $I_F = 15\text{ mA}$ for Yellow	31,500	63	0	31,500	< 3.17
AlGaAs	Low Temperature Operating Life	$T_A = -20^{\circ}\text{C}$, $I_F = 15\text{ mA}$	10,500	21	0	10,500	< 9.52
HER, Green, Yellow, AlGaAs	Wet High Temperature Operating Life	$T_A = +85^{\circ}\text{C}$, R.H. = 85% $I_F = 10\text{ mA}$	42,000	84	0	42,000	< 2.38



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Table 2. Environmental Tests

Test Name	Reference	Test Conditions	Units Tested	Units Failed
Solder Heat Resistance	Agilent Internal Test	1x wave solder at 245°C for total of 3 seconds and 5 Temperature Cycles per MIL-STD-883 Method 1010.	2,300	0
Temperature Cycle	MIL-STD-883 Method 1010	-40°C to +80°C, 15 min. dwell, 5 min. transfer, up to 20 cycles.....	2,300	0
Humidity Storage	JIS C 7021 Method B-11	85°C, 85% RH, 500 Hours	21	0

