

# Mesh Schottky Diodes

## Reliability Data

**5082-2303**  
**5082-2900**

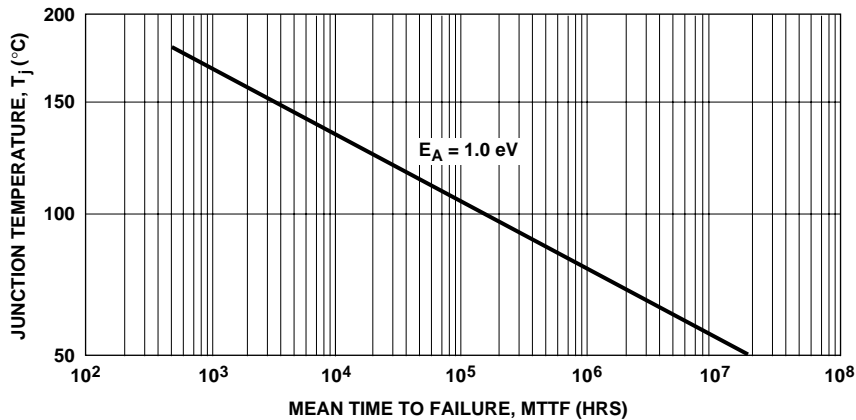
### Description

For applications requiring component reliability estimation, Hewlett-Packard provides reliability data for all families of devices. Data is compiled from reliability tests run to demonstrate that a product meets the specified design criteria.

Periodically, additional tests are run. The data on this sheet represents the latest review of accumulated test results. All data recorded here is for mesh Schottky diodes mounted in hermetically sealed glass packages.

### Applications

This information represents the capabilities of the generic device. Failure rate and MTTF values presented here are achievable with normal MIL-S-19500 test screening. Reliability can be guaranteed only under specified conditions and LTPD levels.



Mean Time to Failure vs. Junction Temperature.

### 1. Burn-In and Storage

Test	Test Conditions <sup>[1]</sup>	LTPD per 1000 Hours
High Temperature Life	Storage at 125°C	4.0
Steady State Operating Life	$P_{FM} = 100 \text{ mW}$ $V_{RM} = 80\% \text{ of } V_{BR}$ $T_A = 25^\circ\text{C}$ $f = 60 \text{ Hz}$	3.0

**Note:**

1. 1000 hours minimum on all life tests.

### 2. Environmental

Test	MIL-STD-750 Reference	Test Conditions	LTPD
Temperature Cycle	1051C	10 cycles from -65°C to 200°C, 5 hours at extremes, 5 min. transfer	10
Thermal Shock	1056	10 cycles from 0°C to 100°C, 3 sec. transfer	10
Mechanical Shock	2016	5 blows each at X1, X2, Y, 1500 G, 0.5 msec pulse	10
Vibration Fatigue	2046	20 G min., 60 Hz	10
Vibration Variable Frequency	2056	four 4 min. cycles each X, Y, Z at 20 G min., 100 to 2000 Hz	10
Moisture Resistance	1021	240 hours, 90-98% relative humidity	10
Salt Atmosphere	1041	35°C fog for 24 hours	12

### 3. DOD-HDBK-1686 ESD Classification:

- |           |         |
|-----------|---------|
| 5082-2303 | Class I |
| 5082-2900 | Class I |