Agilent Technologies
Innovating the HP Way

Beam Lead PIN Diodes

Reliability Data

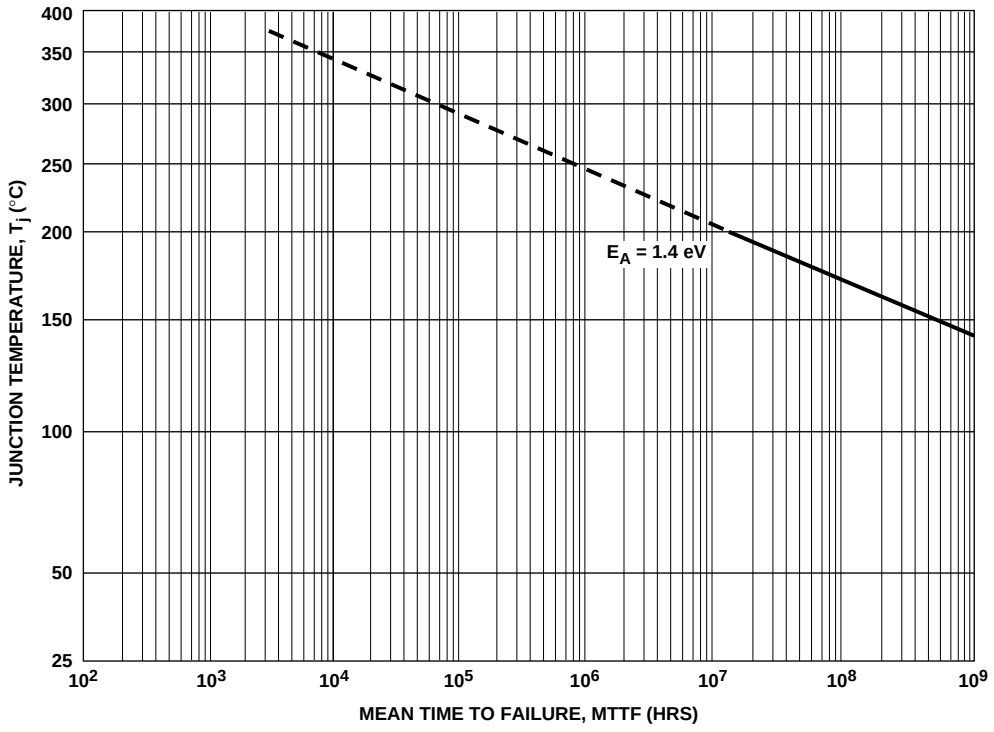
HPND-4005
HPND-4028
HPND-4038

Description

For applications requiring component reliability estimation, Agilent Technologies provides reliability data for all families of devices. Data is initially compiled from reliability tests run prior to market introduction to demonstrate that a product meets design criteria. Additional tests are run periodically. The data on this sheet represents the latest review of accumulated test results.

Applications

This information represents the capabilities of the generic device. Failure rates and MTTF values presented here are achievable with normal MIL-S-19500 TX level screening. This reliability screening is no longer available from Agilent. The screening tests, references, conditions, lot sizes, and LTPD are provided as references only.



Mean Time to Failure vs. Junction Temperature

Burn-In and Storage

Test	Test Conditions	LTPD/ 1000 Hours
High Temperature Life	1,000 hrs. min. storage time @ 200°C	3
Steady State Operating Life	1,000 hrs. min. operating time @ I_F = 30 mA, T_A = 150°C	3

Environmental

Test	MIL-STD-750 Reference	Test Conditions	LTPD
Temperature Cycling	1051	-65/+200°C, 100 cycles, 10 min. dwell, 5 min. transfer	7
Thermal Shock	1056	0/100°C, 100 cycles, 10 min. dwell, 10 sec. transfer	7
Moisture Resistance	1021	98% RH, -10°C/+65°C, 10 days	7
Constant Acceleration	2006	20 KGs, 1 min. each axis	7
Mechanical Shock	2016	5 blows each axis at X, Y, Z, 1500 Gs, 0.5 msec pulse	7
Vibration Variable Frequency	2056	20 Gs min., 100 to 2000 Hz, 4 minute cycles each axis X, Y, Z	7
Salt Atmosphere	1041	Salt Fog at 35°C for 24 hrs.	10

DOD-HDBK-1686 ESD Classification:

HPND-4005 Class I
HPND-4028 Class I
HPND-4038 Class I

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