# Diode, low frequency

## Base Failure Rate

|  |  |
| --- | --- |
| Diode Type/Application | [Failures/106 Hours] |
| General Purpose Analog | 0.0038 |
| Switching | 0.0010 |
| Power Rectifier, Fast Recovery | 0.069 |
| Power Rectifier/Schottky Power Diode | 0.0030 |
| Power Rectifier with High Voltage Stacks | 0.0050/Junction |
| Transient Suppressor/Varistor | 0.0013 |
| Current Regulator | 0.0034 |
| Voltage Regulator and Voltage Reference (Avalance and Zener) | 0.0020 |

Source: MIL-HDBK-217F, page 48

# Diode, high frequency (Microwave, RF)

## Base Failure Rate

|  |  |
| --- | --- |
| Diode Type | [Failures/106 Hours] |
| SI IMPATT (≤ 35GHz) | 0.22 |
| Gunn/Bulk Effect | 0.18 |
| Tunnel and Back (Including Mixers, Detectors) | 0.0023 |
| PIN | 0.0081 |
| Schottky Barrier (Including Detectors) and Point Contact (200 MHz ≤ Frequency ≤ 35 GHz) | 0.027 |
| Varactor and Step Recovery | 0.0025 |

Source: MIL-HDBK-217F, page 50

# Transistor, Low Frequency, bipolar

## Base Failure Rate

|  |  |
| --- | --- |
| Type | [Failures/106 Hours] |
| NPN and PNP | 0.00074 |

Source: MIL-HDBK-217F, page 52

# Transistor, Low Frequency, SI FET

## Base Failure Rate

|  |  |
| --- | --- |
| Type | [Failures/106 Hours] |
| MOSFET | 0.012 |
| JFET | 0.0045 |

Source: MIL-HDBK-217F, page 54