Reliability / FIT Data

IRL520NPBF

SP-Number:	SP001558080
ISP-Name:	IRL520N
Package:	PG-TO220-3

Calculated average failure rate (AFR):

tested devices:	75 763
device hours @ stress conditions:	73 928 267
Failed devices:	72
Activation Energy:	0.7 eV
Ambient Temperature:	55°C
Confidence Level:	**60%**
FIT value:	**1.84**
MTTF (h) value:	**542 374 182**
Confidence Level:	**90%**
FIT value:	**2.07**
MTTF (h) value:	**482 464 397**

Additional information:

FIT-rate calculations are based on JEDEC JESD85 („Methods for Calculating Failure Rates in Units of FITs“) with respect to the technology used.

The sample size used to calculate the FIT-rate of a product, includes also other similar products from the same technology family to gain higher statistical accuracy. Within a technology family all members are equal in respect to the fabrication process and technology design.

Failure Rate given in the report represents an Average Failure Rate (AFR) which relates to the technology reliability.

The actual FIT-rate of the component depends on its application and may deviate from the listed FIT-rate.

AFR are shown as upper limits of the confidence interval. High failure rate may be caused by limited number of devices tested. All executed reliability tests are performed according to the relevant industrial standards.

This FIT-Rate report does not replace the base failure rate for ISO26262-compliant or ISO26262-ready products. For these products refer to the relevant safety manuals or safety application notes.

Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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2025-03-19

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