

To: WIKIOPTICS

Mar. 22, 2021

KQC-B58642

MTTF

Regarding the MTTF of G12183-010K, we report the MTTF calculated using the results of similar products with the same structure and the same design rules including G12183-010K itself.

1. Product Name: InGaAs-PIN Photodiode
2. Type No: G12183 series and similar products
3. MTTF:

MTTF on ordinary conditions (25°C, $V_R=1V$) has been estimated on the basis of reliability testing (High temperature operation) performed on our InGaAs-PIN Photodiode by Hamamatsu Photonics K.K.

After our reliability test, there was no failure part. Therefore, corresponding coefficient of 0.917(C.L60%) was used to estimate the MTTF, supposing the activation energy 0.35eV

| Sample | Failures: r | Total operating time: T (Component hour) | T/r | MTTF (@25°C, $V_R=1V$) |
|---------|-------------|---|----------------------------|-------------------------|
| 338 pcs | 0 pcs | 1.45×10^7 hrs | $(1.45 \times 10^7)/0.917$ | 1.6×10^7 hrs |

The MTTF in case of no failure depends on the total operating time and number of samples.

Please treat this result as a theoretical value for reference.

Best regards

Hamamatsu Photonics K.K.

Checked by: Y. Kubota
Yukihiko Kubota
Manager, The 2nd Quality Group
Quality Control Dept.
Solid State Division