

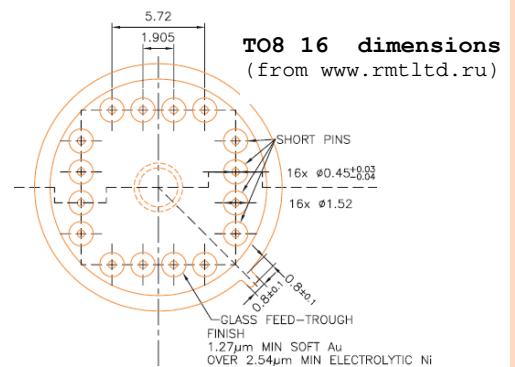
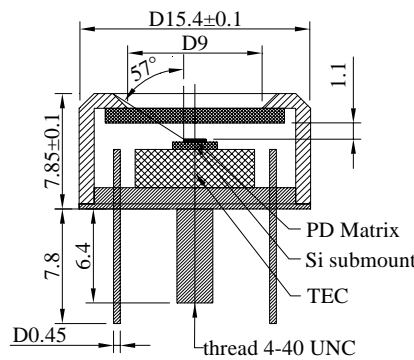
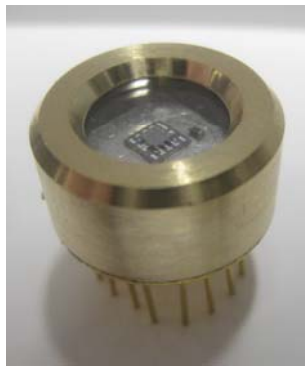
9-elements (3x3) Photodiode Arrays with TE cooling
 4-elements (2x2) Photodiode Arrays with TE cooling

PD34NB (WB) 3x3
PD34NB (WB) 2x2

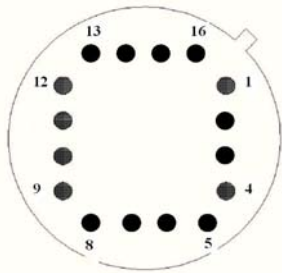
Peak wavelength	λ_{max}	μm	3.35 ± 0.05 @22 °C
Current sensitivity	S_I	A/W	≥ 2.5 ¹
Shunt Resistance	R_0	Ohm	≥ 500
Detectivity	$D^*_{\lambda_{max}}$	$cmHz^{1/2}W^{-1}$	$\geq 1.4 \times 10^{10}$
Switching time	τ	ns	≤ 20 ²

Code	Sensitive area, mm ²	Weight, g	Array protection	Field of view, deg.	Detectivity deviation in lot, %	Operation conditions, °C
PD34NB 3x3	9x(0.32x0.32)	~6.5	output sapphire window D=9 mm	~115	±12	-60÷+85
PD34NB 2x2	4x(0.32x0.32)					

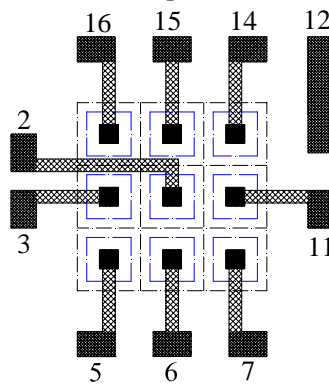
Product view



TO8 16 pin numeration (view from bottom side)



Pixel - pin correspondence



Pin assignment

- | | |
|----------------|---------------------------------|
| 1 TEC negative | 9 thermoresistor |
| 2 PD + | 10 thermoresistor |
| 3 PD + | 11 PD + |
| 4 TEC positive | 12 PD common negative electrode |
| 5 PD + | 13 free |
| 6 PD + | 14 PD + |
| 7 PD + | 15 PD + |
| 8 free | 16 PD + |

Features

- Original growth of narrow gap A3B5 semiconductor alloys onto n⁺-InAs substrate;
- Deep mesa chip and backside illuminated design;
- Individually addressable PD elements with common cathode;
- Ambient and high temperature operation;
- No bias required;
- Operation from DC to VHF;
- Highest long term stability;
- High value of shunt resistance;
- Narrow(NB) or wide(WB) spectral band;

Other packages are available upon request. Data are valid for PD thermostabilized at 22°C. **Heatsink is essential for TEC operation!**

Notes

¹ - according to p-n junction area calculation
² - according to estimation

Product specifications are subject to change without prior notice due to improvements or other reasons. Updated 05.05.2014

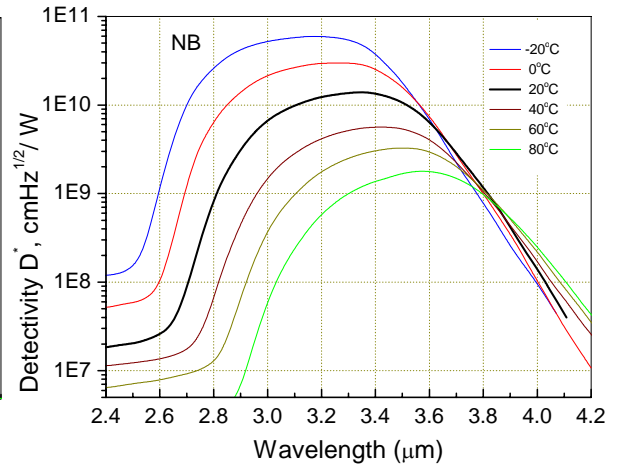
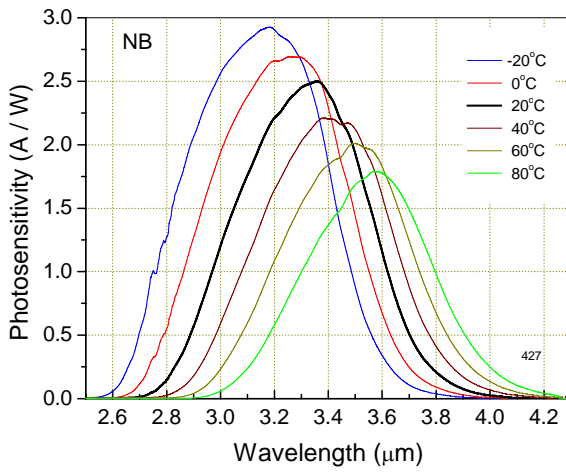


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 IoffeLED, Ltd

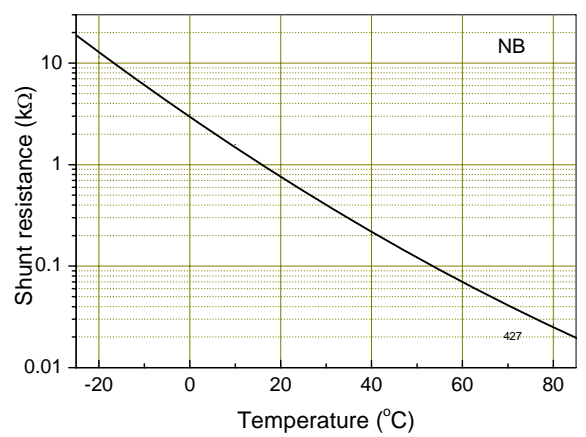
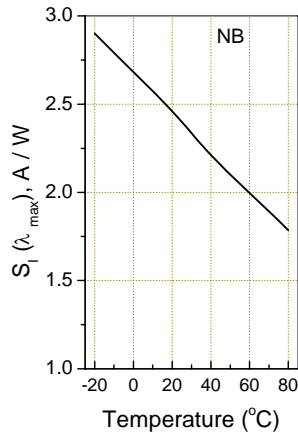
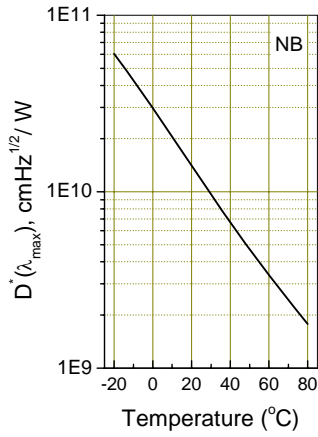
Politechnicheskaya 26,
 St.Petersburg, 194021,
 RUSSIA

<http://www.ioffeled.com>; e-mail: Mremenny@mail.ioffe.ru
<http://www.mirdog.spb.ru>; e-mail: bmat@iropt3.ioffe.ru

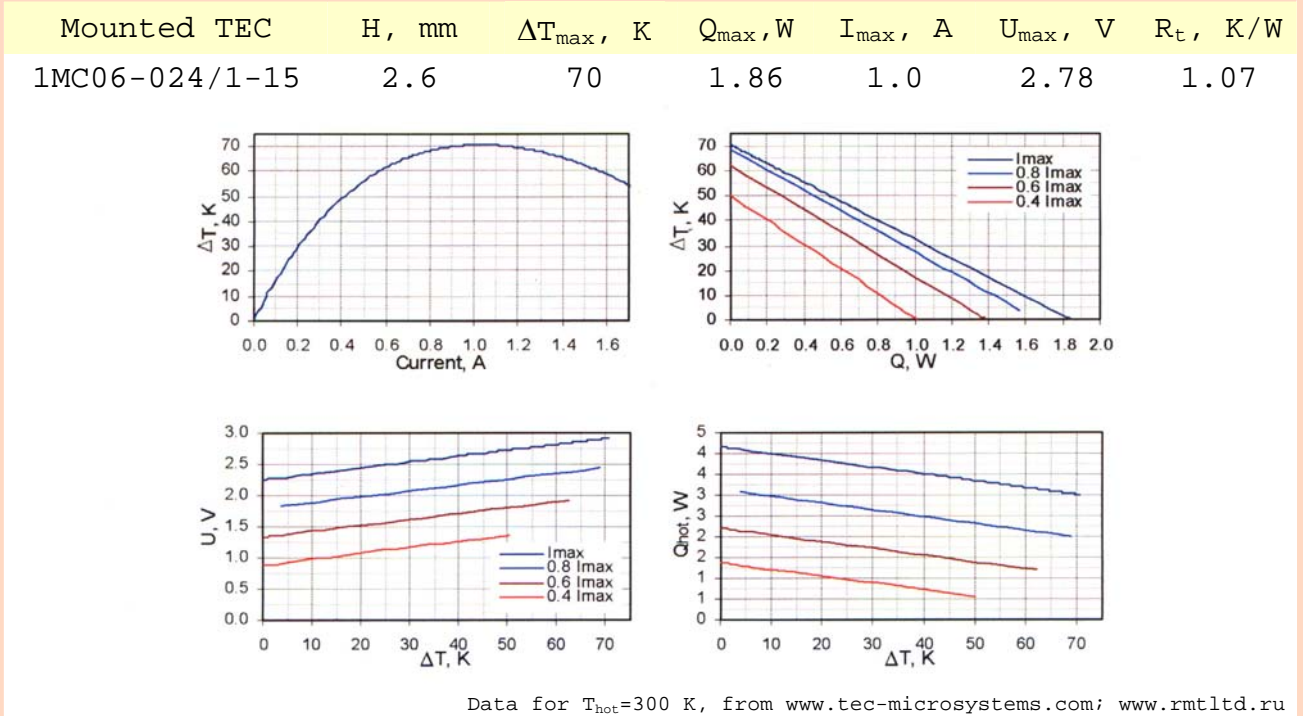
Spectral response



Detectivity, current sensitivity at λ_{max} and shunt resistance vs. temperature



Thermoelectric cooling module datasheet



Thermistor specification

