

VTB Process Photodiodes

VTB PROCESS BLUE ENHANCED, ULTRA HIGH DARK RESISTANCE

FEATURES

- *Enhanced UV to IR spectral range*
- *Integral IR rejection filters available*
- *Response @ 220 nm, 0.06 A/W, typical with UV window*
- *Response @ 365 nm, 0.14 A/W typical*
- *High open circuit voltage @ low light levels*
- *1 to 2% linearity over 7 to 9 decades*
- *Very low dark current & high shunt resistance*

PRODUCT DESCRIPTION

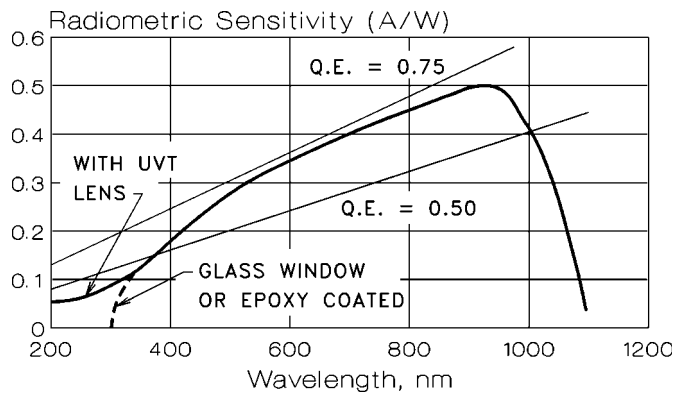
This series of P on N silicon planar photodiodes have been designed to maximize their response through the visible part of the spectrum. Those units with UV transmitting windows also exhibit excellent response in the UV region and are characterized at 220 nm.

"B" series devices have a built-in infrared rejection filter for those applications where a detector is needed that approximates the human eye. Typical transmission of wavelengths greater than 750 nm is less than 3% when measured with an incandescent source operating at 2850 K.

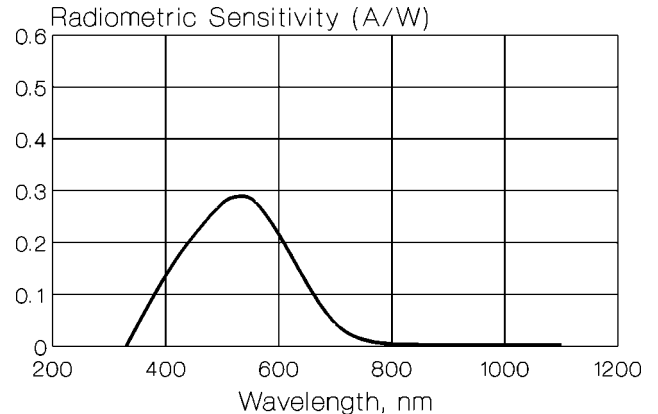
Diodes made with the VTB process are primarily intended for use in the photovoltaic mode but may be used with a small reverse bias. All photodiodes in this series exhibit very high shunt resistance. This characteristic leads to very low offsets when the diodes are used in high gain transimpedance op-amp circuits.

TYPICAL CHARACTERISTIC CURVES @ 25°C (UNLESS OTHERWISE NOTED)

Absolute Spectral Response

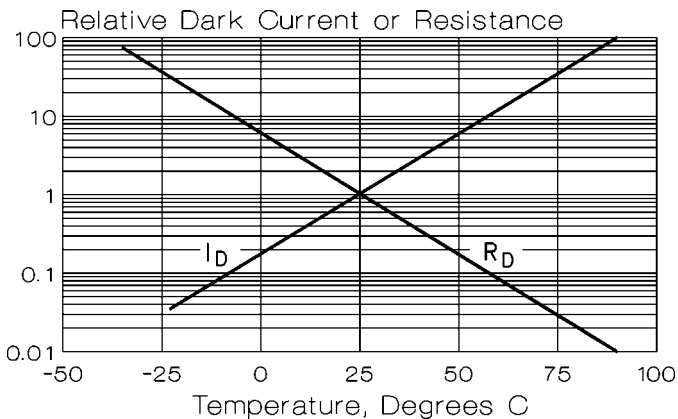


Absolute Spectral Response "B" Series (Filtered)

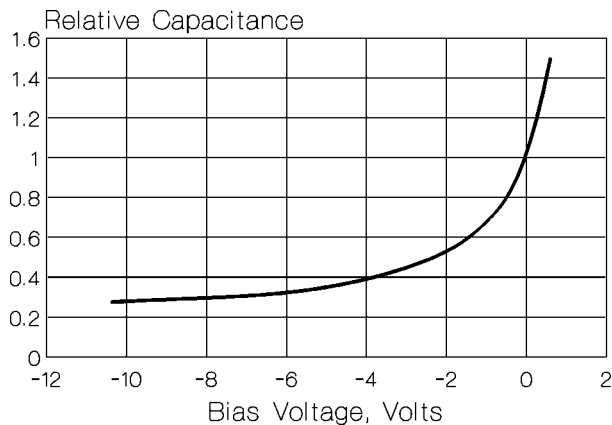


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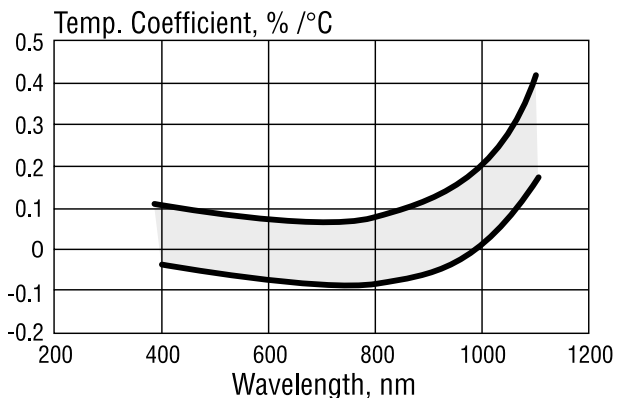
Relative Dark Current or Resistance vs. Temperature (Referred To 25°C)



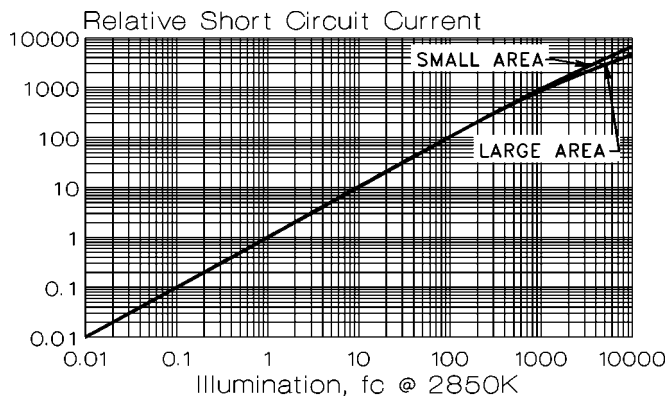
Relative Junction Capacitance vs. Voltage (Referred To Zero Bias)



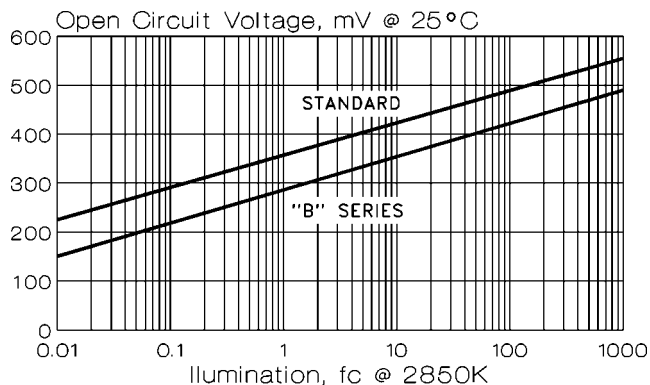
Temperature Coefficient of Light Current vs. Wavelength



Relative Short Circuit Current vs. Illumination



Open Circuit Voltage vs Illumination



Rise/fall Times - Non Standard

