

Si Phototransistors

KPT801HB2

Characteristics

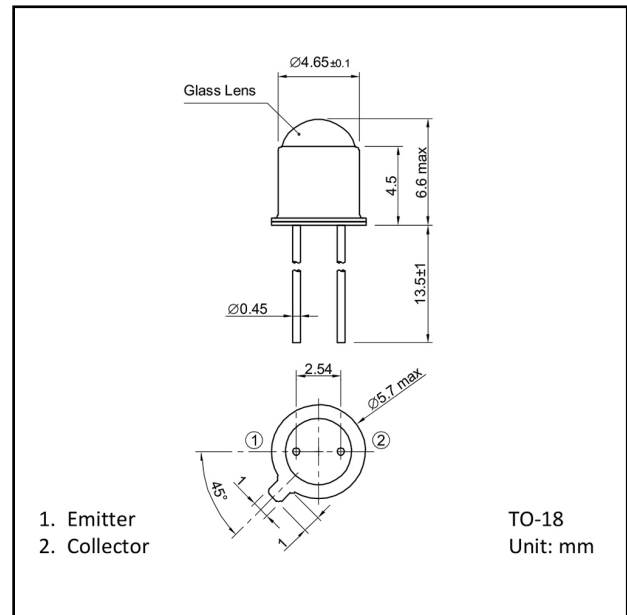
- NPN phototransistor
- Visible light filter
- Hermetical seal package with glass lens
- Low leak current

Applications

- Optical switches
- Optical encoders
- Photo-isolators
- Camera stroboscopes
- Infrared sensors
- Automatic control apparatus

Package

- TO-CAN



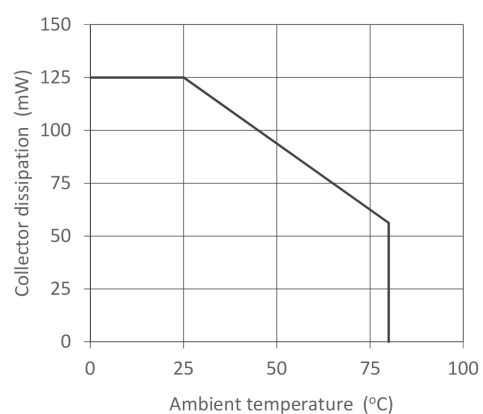
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
APD Reverse Collector-emitter voltage	V_{CEO}	20	V	-
APD Reverse Emitter-collector voltage	V_{ECO}	5	V	-
Collector dissipation	P_D	125	mW	-
Operating temperature	T_{opr}	-20 to +80		Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100		Avoid dew condensation

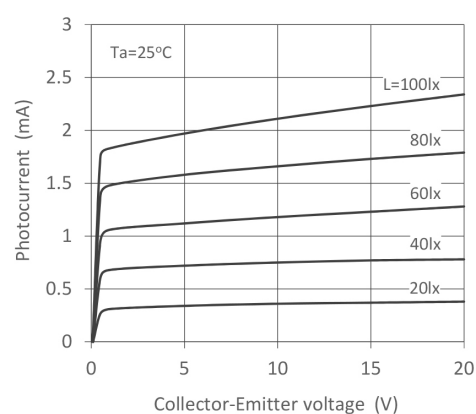
Electrical and Optical characteristics ($T_a=25^\circ\text{C}$ $V_R=2\text{V}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Sensitive size	S	-	0.64 × 0.64	-	mm ²	-
Sensitive wavelength		700	800(λ_p)	1100	nm	λ_p =Peak wavelength
Photocurrent	I_L	-	2	-	mA	$V_{CE}=5\text{V}$ 100lx(@2856K)
Dark current	I_{ceo}	-	100	200	nA	$V_{CE}=20\text{V}$
Half angle	2θ	-	17	-	deg.	-
Current amplification factor	h_{FE}	400	-	-	null	$V_{CE}=5\text{V}$ $I_C=2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.4	V	$I_C=0.1\text{mA}$ 100lx(@2856K)
Rise/Fall Time	t_r t_f	-	5	-	μs	$V_{CE}=5\text{V}$ $I_C=2\text{mA}$ $R_L=100\Omega$

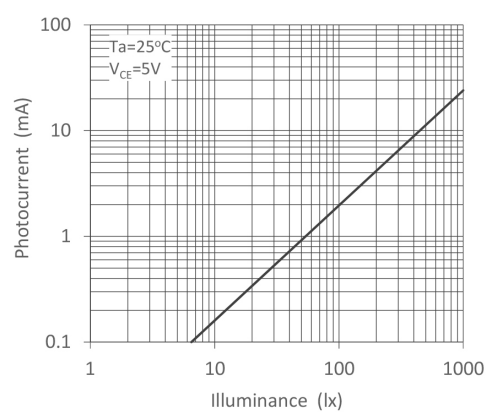
Collector Dissipation - Ambient Temperature



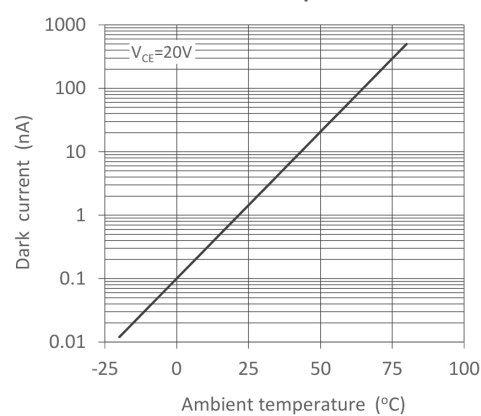
Photocurrent - Collector-Emitter Voltage



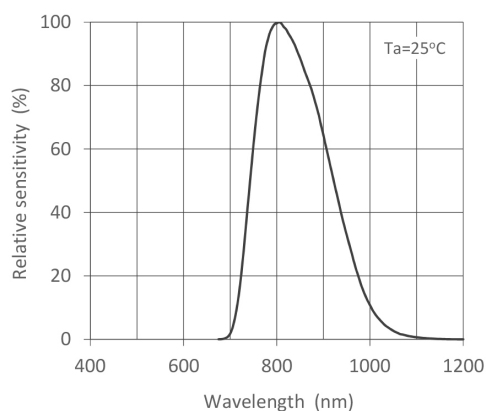
Photocurrent - Illuminance



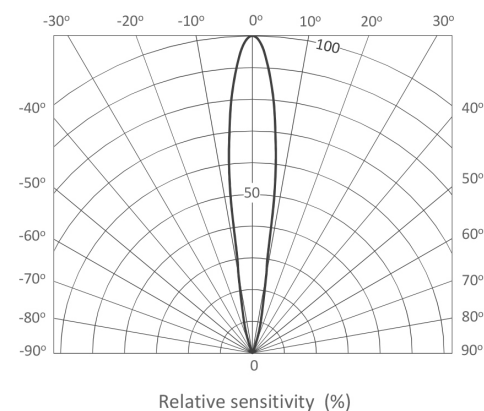
Dark Current - Ambient Temperature



Spectral Responsivity



Directivity



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