

PHOTOTRANSISTOR

PS4012

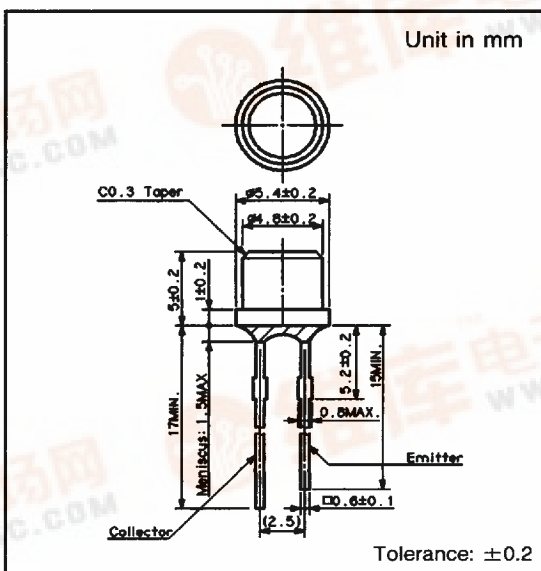
FEATURES

- FLAT LENS
- 5mm DIA. MOLDED EPOXY TYPE

APPLICATION

- PHOTSENSOR
- PHOTO SWITCH

Package Dimensions



Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Item	Symbol	Maximum Ratings	Unit
Collector Dissipation	P_c	100	mW
Collector-Emitter Breakdown Voltage	V_{CE0}	30	V
Emitter-Collector Breakdown Voltage	V_{ECO}	5	V
Collector Current	I_c	30	mA
Operating Temperature	T_{opr}	$-30 \sim +85$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-30 \sim +100$	$^\circ\text{C}$

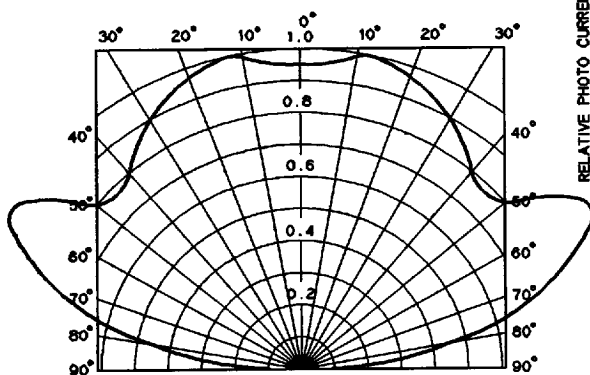
Electro-Optical Characteristics

($T_a = 25^\circ\text{C}$)

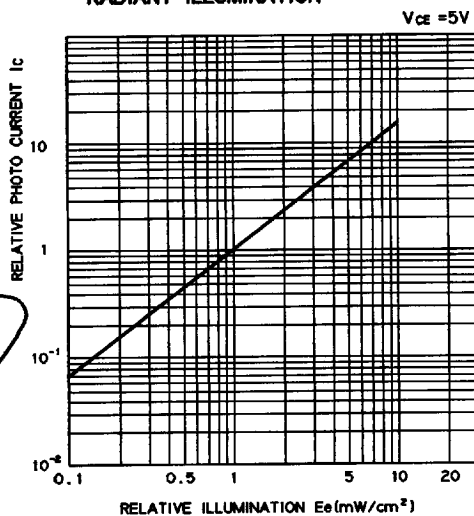
Item	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-Emitter Dark Current	I_{CED}	—	—	0.2	μA	$V_{CEP} = 10\text{V}$
Photo Current	I_c	0.1	0.5	—	mA	$V_{CE} = 5\text{V}$, $E_e = 1\text{mW}/\text{cm}^2$
Response Time	Leading Time	T_r	5	—	μsec	$V_{CE} = 10\text{V}$ $I_c = 2\text{mA}$, $R_L = 100\Omega$
	Trailing Time	T_f	5	—	μsec	
Peak Sensitivity Wavelength	λ_p	—	880	—	nm	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	—	0.1	—	V	$I_c = 0.5\text{mA}$, $E_e = 10\text{mW}/\text{cm}^2$

* At color temp. 2856°K standard tungsten filament bulb.

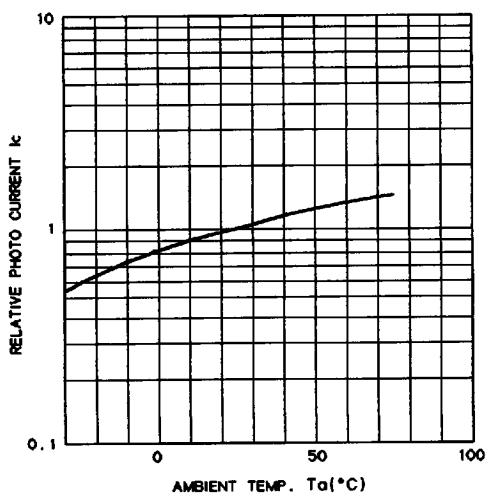
■ DIRECTIVITY CHARACTERISTICS



■ RELATIVE PHOTO CURRENT vs. RADIANT ILLUMINATION

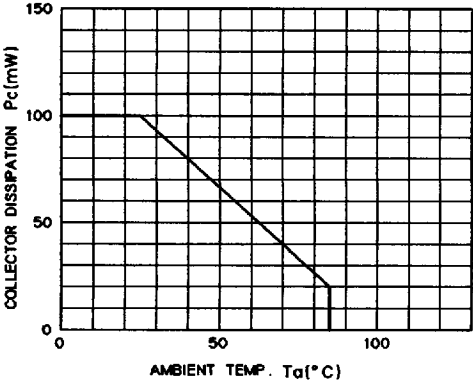


■ PHOTO CURRENT vs. AMBIENT TEMP.

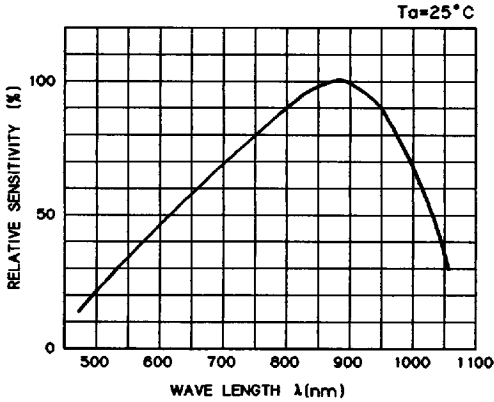


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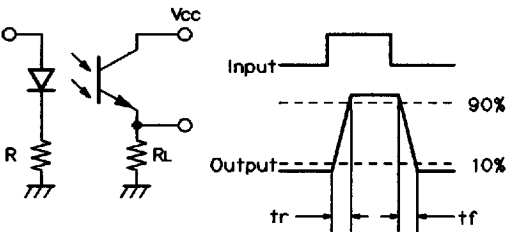
COLLECTOR DISSIPATION vs. AMBIENT TEMP.



SPECTRAL SENSITIVITY CHARACTERISTICS



RESPONSE TIME MEASURING CIRCUIT



RESPONSE TIME vs. LOAD RESISTANCE

