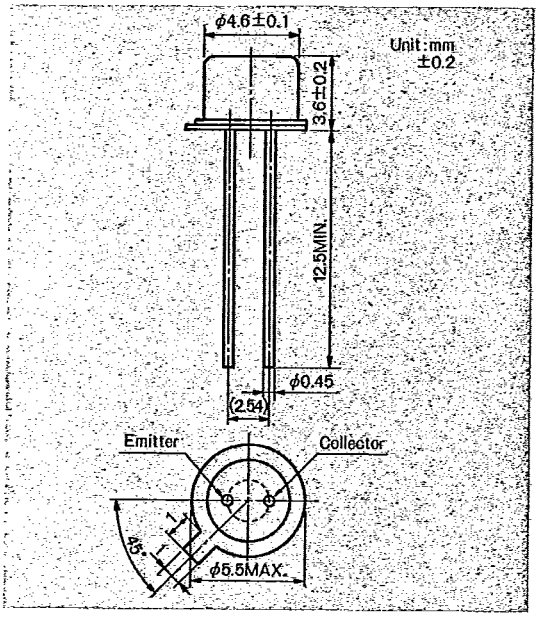
STANLEY

STANLEY PHOTO TRANSISTOR

PS201

T-41-61

■ Package Dimensions



■ FEATURES

(1) High reliability, long life time
(2) High current
(Typ. 3mA at Ee = 10 mW/cm²)
(3) Non-directivity
(4) Wide range of spectral wavelength

■ APPLICATIONS

(1) Photoelectric switch, photoelectric counter
(2) Position-rotation detection
(3) Smoke detectors
(4) Photoisolators

■ Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Maximum Ratings	Unit
Collector Dissipation	Pc	150	mW
Collector-Emitter Breakdown Voltage	V_{CEO}	30	V
Emitter-Collector Breakdown Voltage	V_{ECO}	5	V
Collector Current	Ic	50	mA
Operating Temperature	Topr	−30～+125	℃
Storage Temperature	Tstg	−30～+150	℃

■ Electro-Optical Characteristics (Ta = 25°C)

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

Item		Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-Emitter Dark Current		I_{CEO}	—	—	0.2	μA	V_{CE}=10V、Ee=0
Photo current		Ic	0.6	3	—	mA	V_{CE}=5V、*Ee=10mW/cm²
Response Time	Rise	t_r	—	5	—	μ sec	Vcc=10V
	Fall	t_f	—	5	—	μ sec	Ic=2mA、RL=100Ω
Peak Sensitivity Wavelength		λp	—	800	—	nm	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	—	0.1	—	V	Ic=0.5mA、*Ee=10mW/cm²

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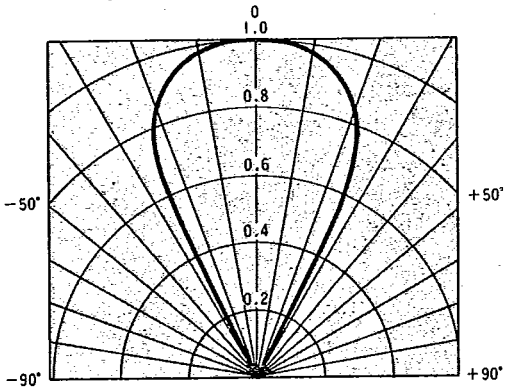
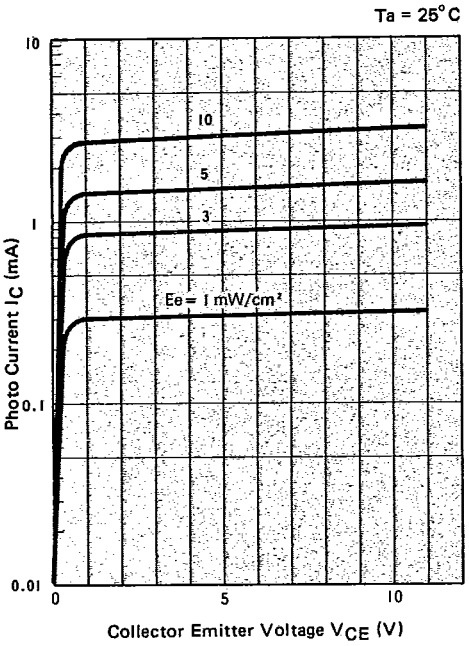
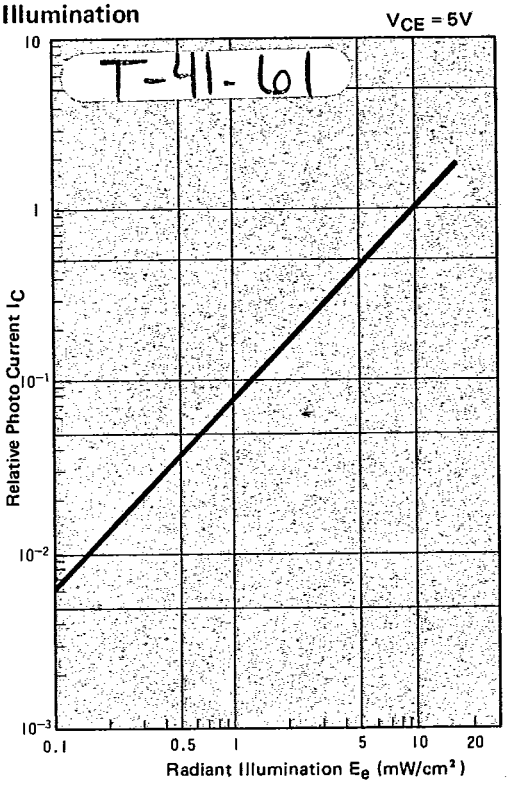
■ Directivity Characteristics



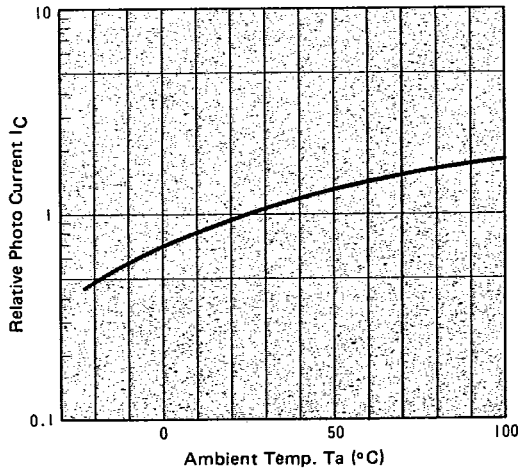
■ Photo Current Vs.Collector Emitter Voltage



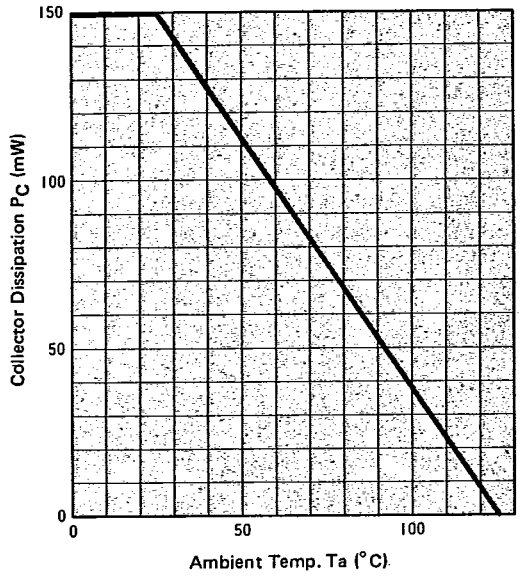
■ Relative Photo Current Vs. Radiant Illumination



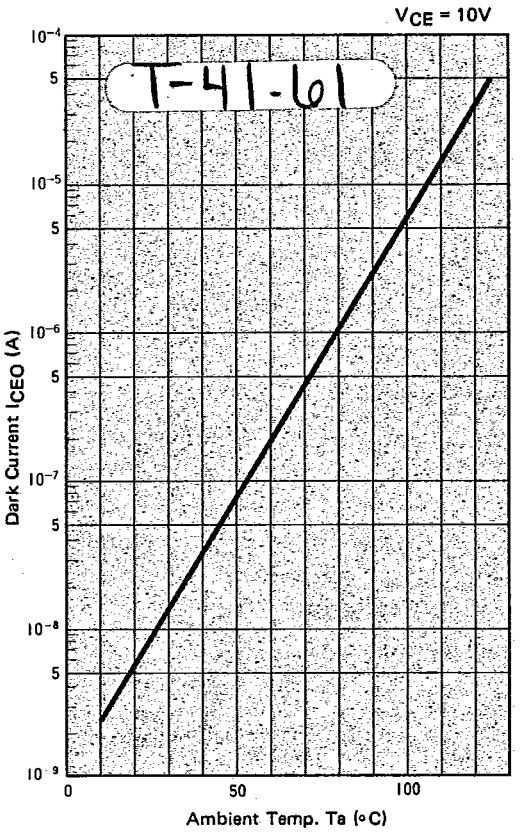
■ Photo Current Vs. Ambient Temp.



■ Collector Dissipation Vs. Ambient Temp.



■ Dark Current Vs. Ambient Temp.



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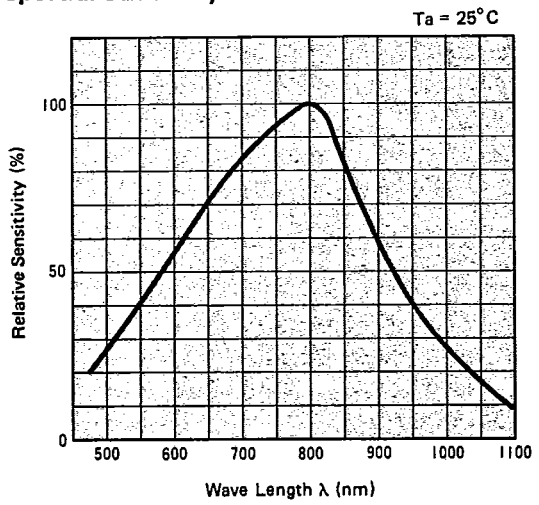
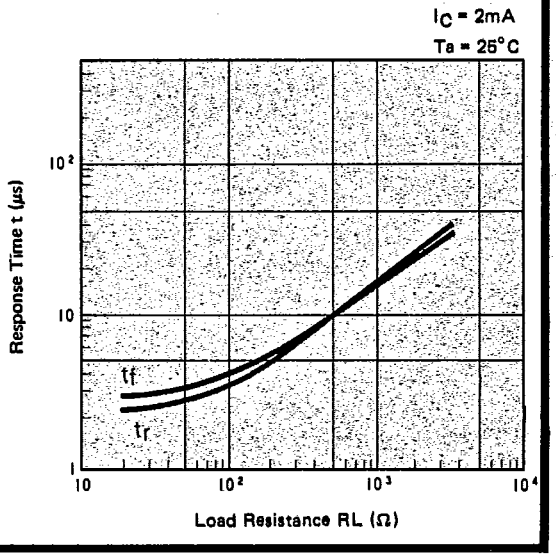
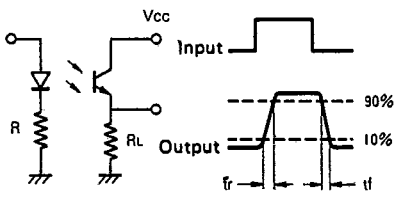
■ Spectral Sensitivity Characteristics



■ Response Time Vs. Load Resistance



■ Response Time Measuring Circuit



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