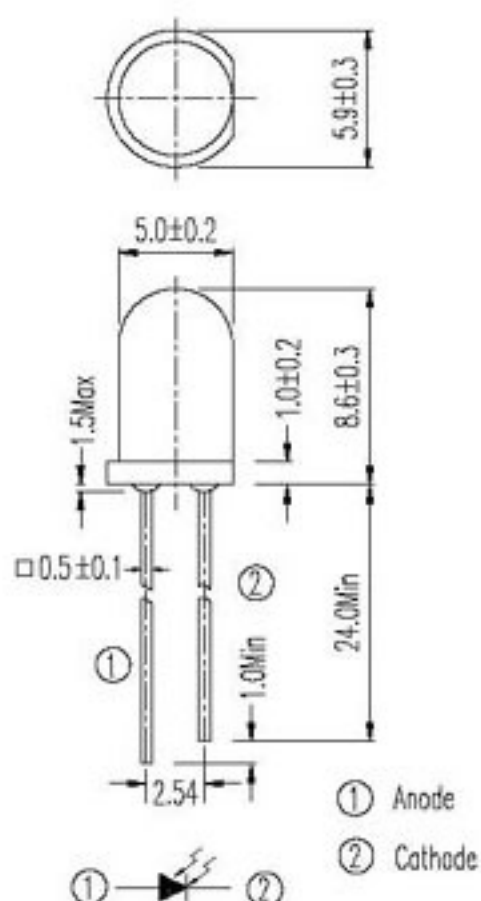


Photo Transistors

Model No: JYR5208

Package Dimensions



Notes: 1.All dimensions are in millimeters
2.Tolerances unless dimensions $\pm 0.25\text{mm}$

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

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector-Voltage	V_{ECO}	5	V
Collector Current	I_C	20	mA
Operating Temperature	T_{opr}	$-25 \sim +85^\circ\text{C}$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-40 \sim +85^\circ\text{C}$	$^\circ\text{C}$
Lead Soldering Temperature	T_{sol}	260	$^\circ\text{C}$
Power Dissipation at (or below) 25 $^\circ\text{C}$ Free Air Temperature	P_c	75	mW

Notes: *1:Soldering time ≤ 5 seconds.

Photo Transistors

Model No: JYR5208

Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Rang Of Spectral Bandwidth	$\lambda_{0.5}$	---	840	---	1100	nm
Wavelength of Peak Sensitivity	λ_P	---	---	940	---	nm
Collector – Emitter Breakdown Voltage	BV_{CEO}	$I_C=100 \mu A$ $E_e=0mW/cm^2$	30	---	---	V
Emitter-Collector Breakdown Voltage	BV_{ECO}	$I_E=100 \mu A$ $E_e=0mW/cm^2$	5	---	---	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2mA$ $E_e=1mW/cm^2$	---	---	0.4	V
Rise Time	t_r	$V_{CE}=5V$ $I_C=1mA$ $RL=1000 \Omega$	---	15	---	μS
Fall Time	t_f		---	15	---	
Collector Dark Current	I_{CEO}	$E_e=0mW/cm^2$ $V_{CE}=20V$	---	---	100	nA
On State Collector Current	$I_{C(on)}$	$E_e=1mW/cm^2$ $V_{CE}=5V$	0.7	2.0	---	mA

Rankings

Parameter	Symbol	Min	Max	Unit	Test Condition
G	$I_{C(on)}$	0.70	1.90	mA	$V_{CE}=5V$ $E_e=1mW/cm^2$
H		1.14	2.60		
J		1.77	3.61		
K		2.67	5.07		

Photo Transistors

Model No: JYR5208

Typical Electro-Optical Characteristics Curves

Fig.1 Collector Power Dissipation vs.
Ambient Temperature

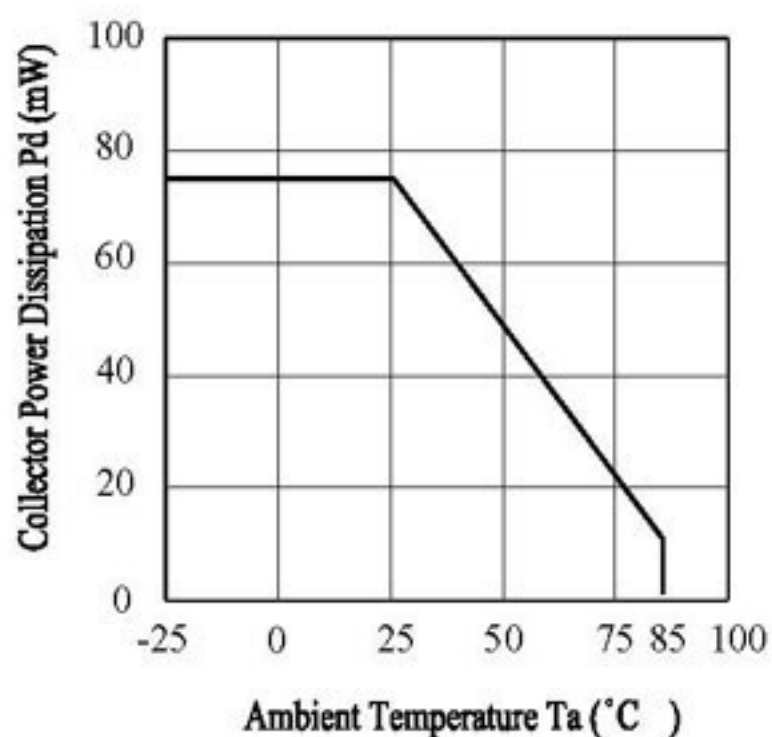


Fig.2 Spectral Sensitivity

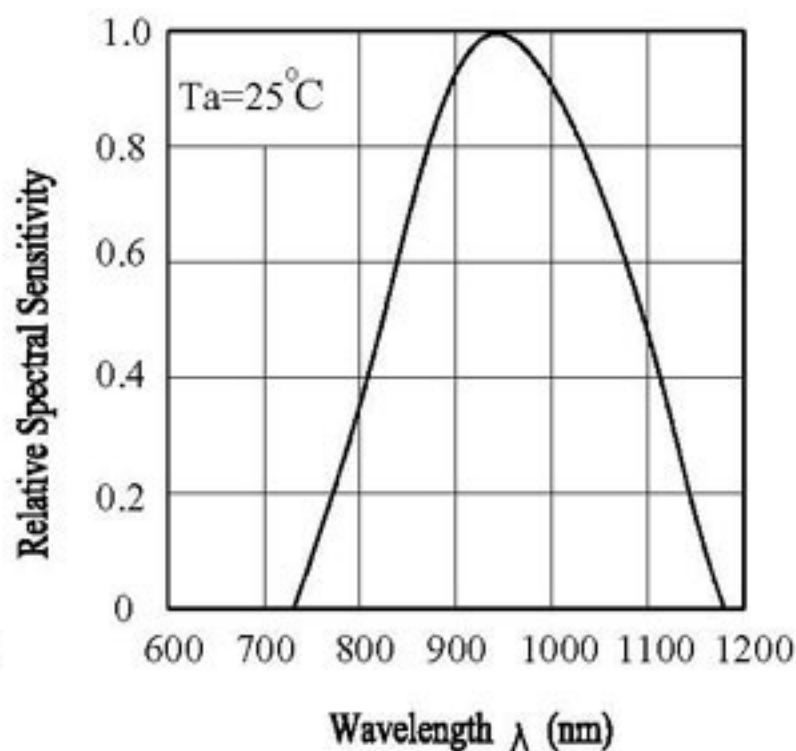


Fig.3 Relative Collector Current vs.
Ambient Temperature

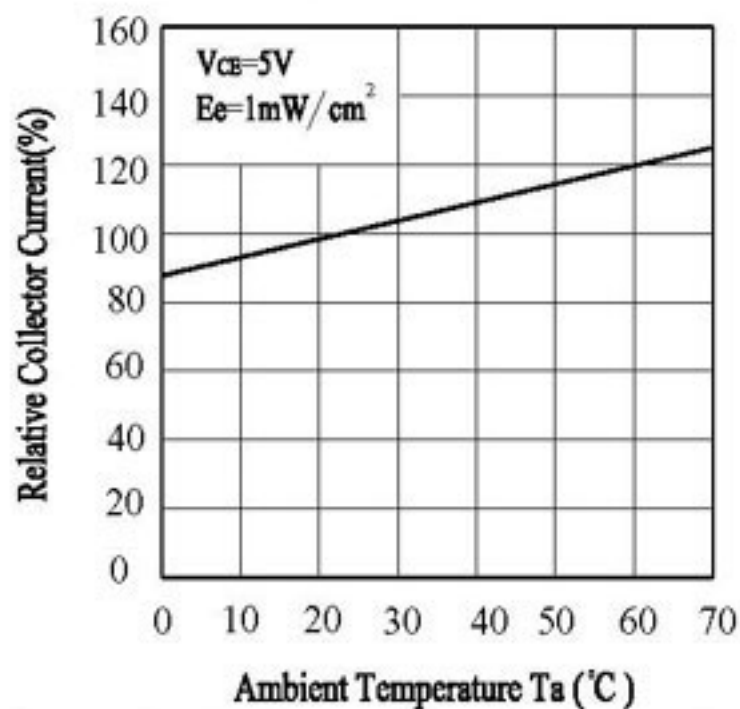
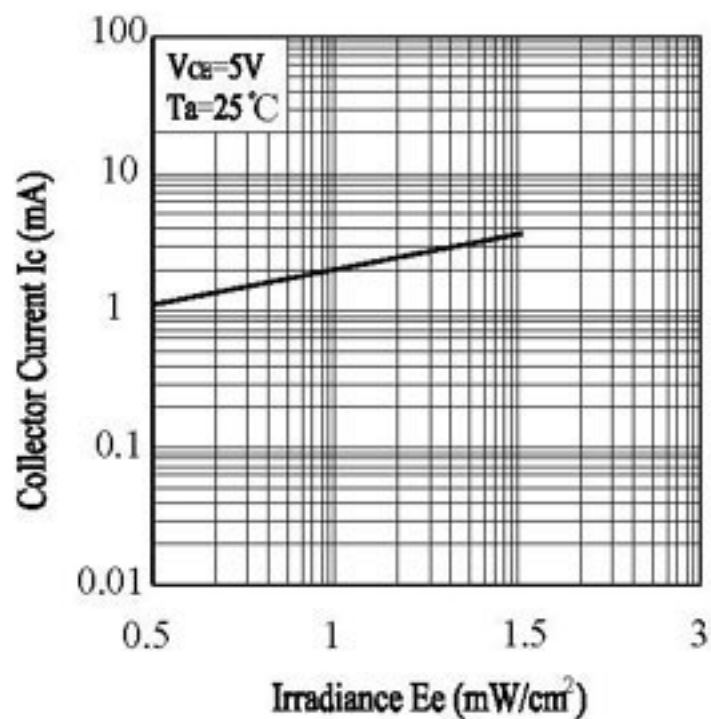


Fig.4 Collector Current vs.
Irradiance



Typical Electro-Optical Characteristics Curves

Fig.5 Collector Dark Current vs.
Ambient Temperature

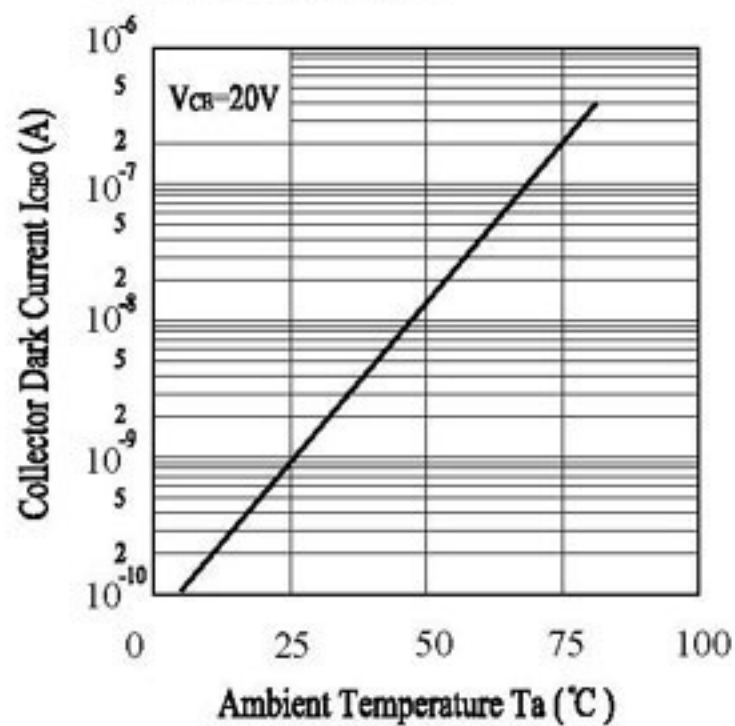


Fig.6 Collector Current vs.
Collector-Emitter Voltage

