

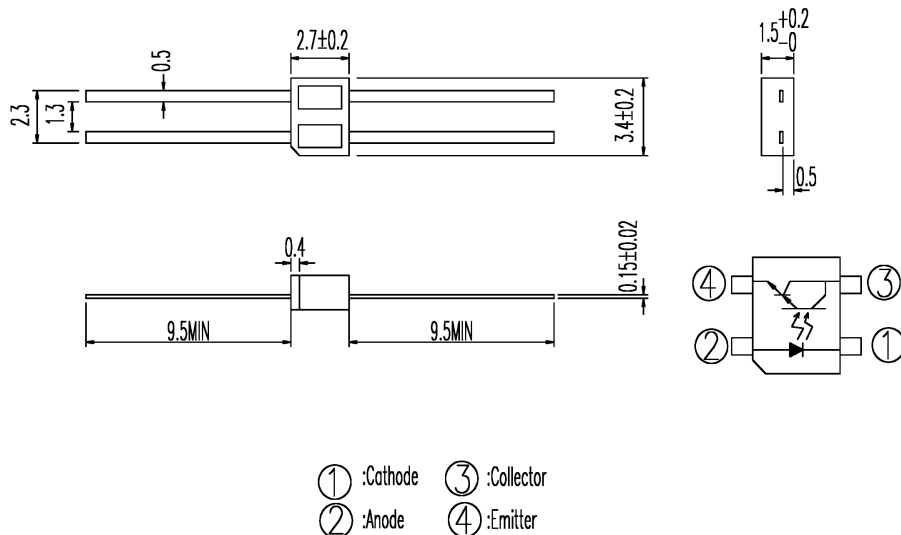
MTRS8307L

Features

Fast Response Time
Photo Darlington Output
Cut-Off Visible Wavelength
Thin
Compact

Applications

Camera
VCR
Floppy Disk Driver
Cassette Type Recorder
Microcomputer Control Equipment



Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I _F	50	—	mA
Pulsed Forward Current	I _{FP}	1.00	tw=100μs, T=10ms	A
Reverse Voltage	V _R	6	—	V
Power Dissipation	P _D	75.00	—	mW
Collector-Emitter Voltage	V _{CE}	35	—	V
Emitter-Collector Voltage	V _{EC}	6	—	V
Collector Current	I _C	20	—	mA
Operating Temperature	T _{opr}	-20 ~ +70	—	°C
Storage Temperature	T _{stg}	-30 ~ +80	—	°C
Soldering Temperature	T _{sol}	260	for 5 sec. max	°C

Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =20mA	—	1.20	1.40	V
Reverse Current	I _R	V _R =6V	—	—	10	μA
Dark Current	I _D	V _{ce} =10V, E _e =1mW/cm ²	—	—	1	μA
Peak Sensitivity Wavelength	λ _p	I _F =20mA	—	940	—	nm
Rise Time	T _r	V _{ce} =2V, I _c =10mA, R _L =100Ω	—	80000.00	—	ns
Fall Time	T _f	V _{ce} =2V, I _c =10mA, R _L =100Ω	—	70000.00	—	ns

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MTRS8307L Graphs

Fig.1 Collector Power Dissipation vs. Ambient Temperature

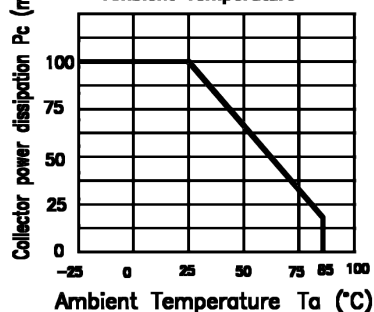


Fig.2 Collector Dark Current vs. Ambient Temperature

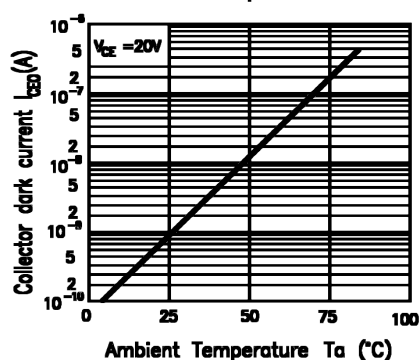


Fig. 3 Relative Collector Current vs. Ambient Temperature

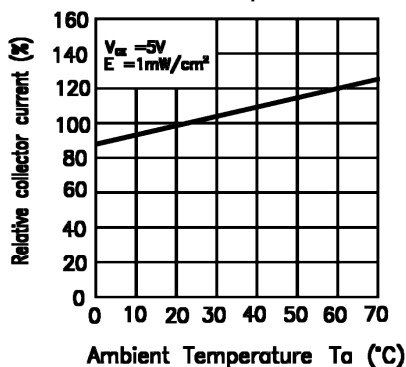


Fig.4 Collector Current vs. Irradiance

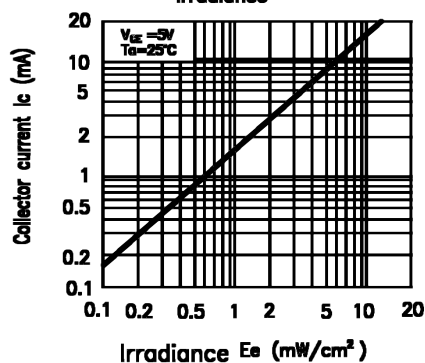


Fig.5 Spectral Sensitivity

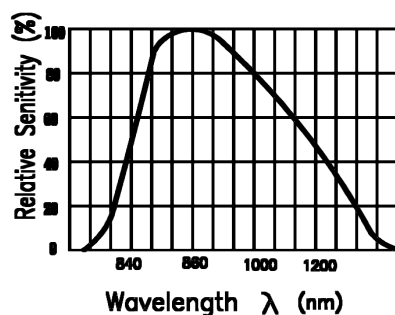
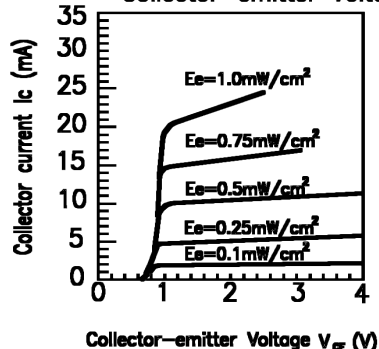


Fig.6 Collector Current vs. Collector-emitter Voltage



MTRS8307L Graphs

Fig.7 Relative Collector Current vs. Distance between Sensor and Al Evaporation Galss

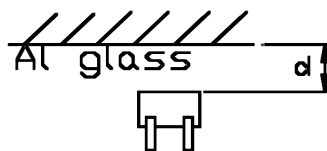
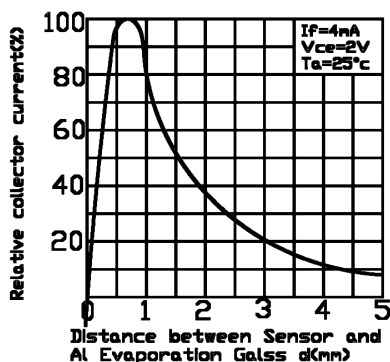


Fig.8 Relative Collector Current vs. Card Moving Distance (l)

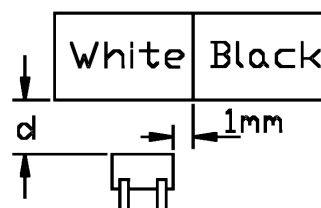
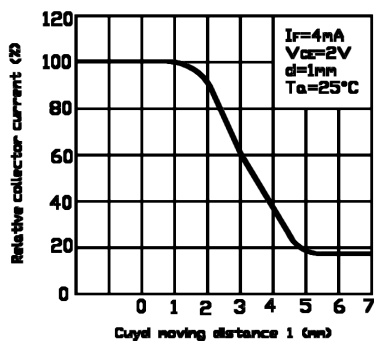


Fig.9 Response Time vs. Load Resistance (GP2S24/GP2S26/GP2S27)

