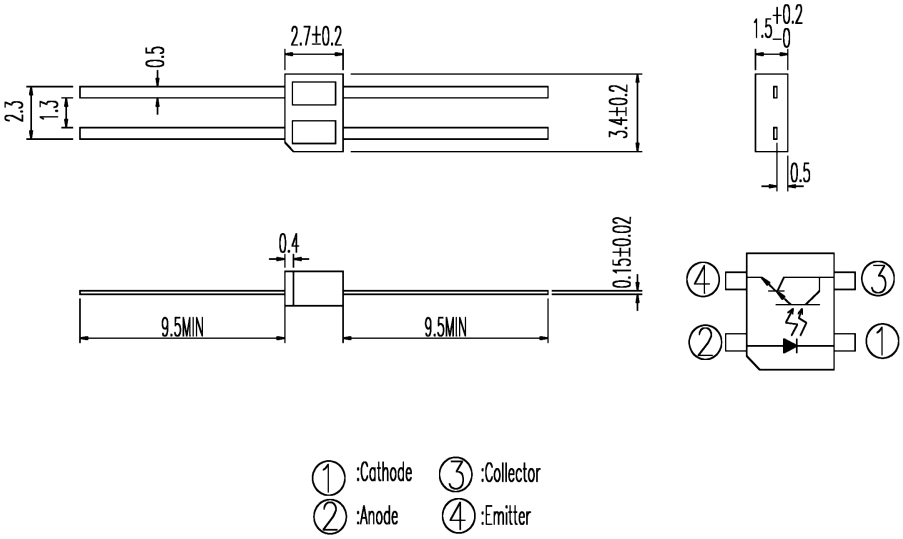
Marktech Optoelectronics

Reflective Switch

MTRS8307L



Features

Fast Response Time
Photo Darlingotn 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=100μ S, 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	Vce=10V,Ee=1mW/cm2	−	−	1	μA
Peak Sensitivity Wavelength	λp	I_F=20mA	−	940	−	nm
Rise Time	T_r	Vce=2V,Ic=10mA,RL=100Ω	−	80000.00	−	ns
Fall Time	T_f	Vce=2V,Ic=10mA,RL=100Ω	−	70000.00	−	ns

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MTRS8307L Graphs

Fig.1 Collector Power Dissipation vs. Ambient Temperature

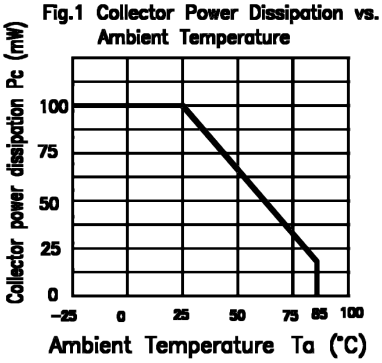


Fig.2 Collector Dark Current vs. Ambient Temperature

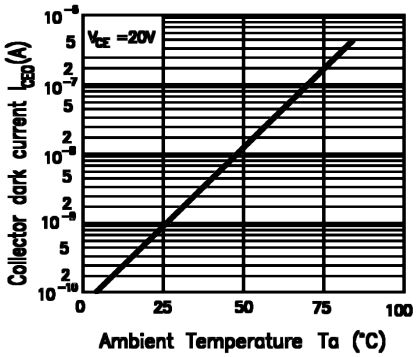


Fig. 3 Relative Collector Current vs. Ambient Temperature

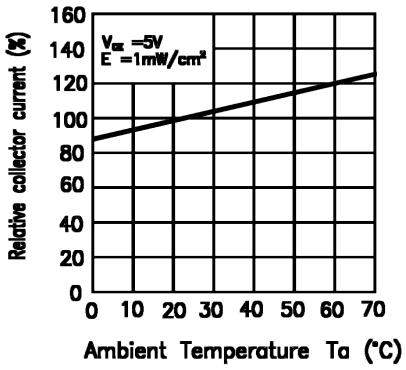


Fig.4 Collector Current vs. Irradiance

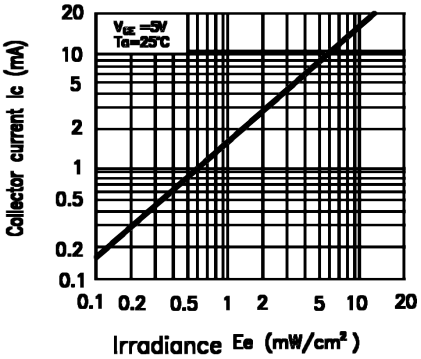


Fig.5 Spectral Sensitivity

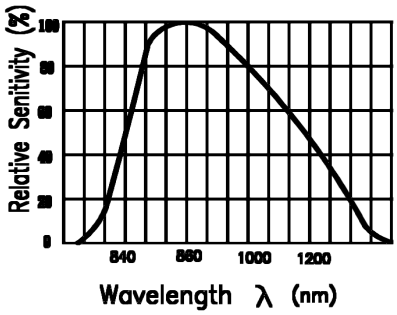
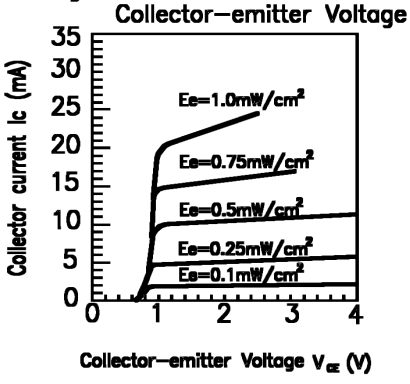


Fig.6 Collector Current vs. Collector-emitter Voltage



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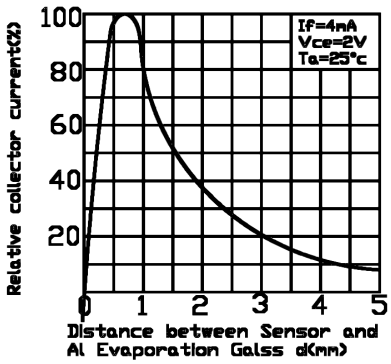
MTRS8307L Graphs

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



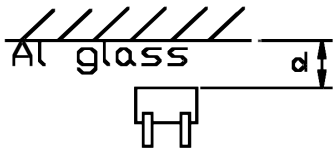
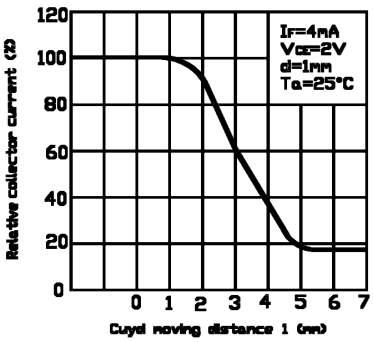


Fig.8 Relative Collector Current vs. Card Moving Distance (1)



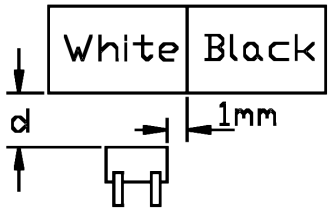
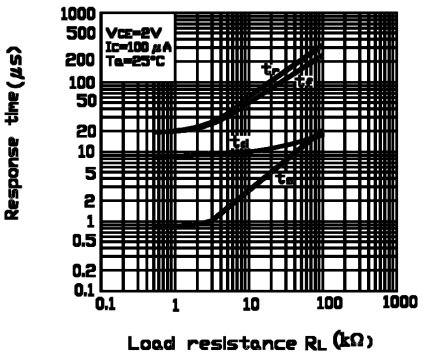
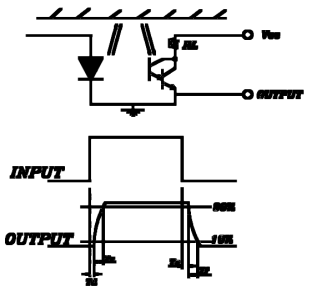


Fig.9 Response Time vs. Load Resistance (GP2S24/GP2S26/GP2S27)





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