

Spec. No. : ODT-W040-05(1)

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SPECIFICATION

MODEL NAME : Photo Interrupters

MODEL NO. : OGR205T

ODTech

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Description

The OGR205T is reflective sensor for paper sensing combined high-output GaAs IRED with high sensitive photo-transistor

Features

- High performance
- High-speed response

Applications

- Edge sensors
- Mouse copier
- Facsimiles switch scanner

Absolute Maximum Ratings

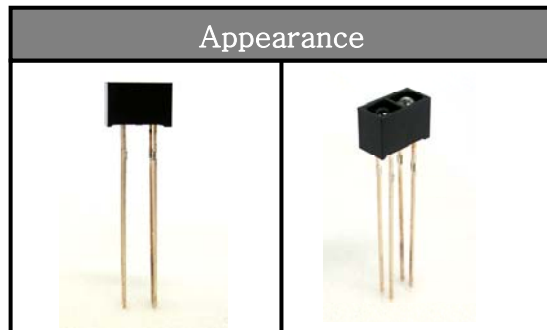
(Ta= 25℃)

Parameter		Symbol	Rating	Unit
Input	Power dissipation	P_D	80	mW
	Reverse voltage	V_R	5	V
	Forward current	I_F	60	mA
	Pulse forward current (tw=100μs, T=10ms)	I_{FP}	1	A
Output	Collector Power dissipation	P_C	75	mW
	Collector current	I_C	20	mA
	C-E voltage	V_{CEO}	30	V
	E-C voltage	V_{ECO}	5	V
Operating temp.		T_{OPR}	-20 ~ 85	℃
Storage temp.		T_{STG}	-30 ~ 85	℃

Electro-Optical Characteristics

(Ta=25℃)

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Input	Forward voltage	V_F	$I_F=20mA$	—	1.2	1.5	V
	Reverse current	I_R	$V_R=5V$	—	—	10	μA
	Peak wavelength	λ_P		—	940	—	nm
Output	Collector dark current	I_{CEO}	$V_{CEO}=10V$	—	—	0.1	μA
Light current		I_L	$V_{CE}=5V, I_F=20mA$	0.2	—	—	mA
C-E saturation voltage		$V_{CE(sat)}$	$I_F=30mA, I_C=0.1mA$	—	—	0.3	V
Switching speeds	Rise time	t_r	$V_{CC}=10V, I_C=1mA$ $R_L=100\Omega$	—	2.5	—	μs
	Fall time	t_f		—	3.8	—	μs



■ Typical electrical / Optical characteristic curves ($T_a=25^\circ\text{C}$)

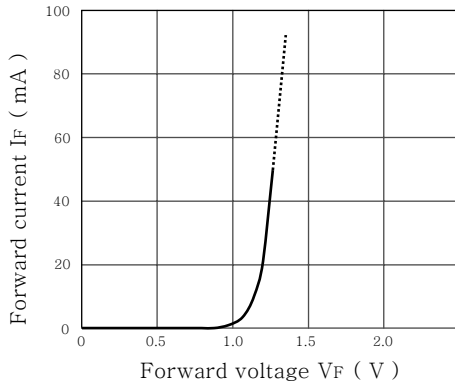


Fig.1 Forward current vs. Forward voltage

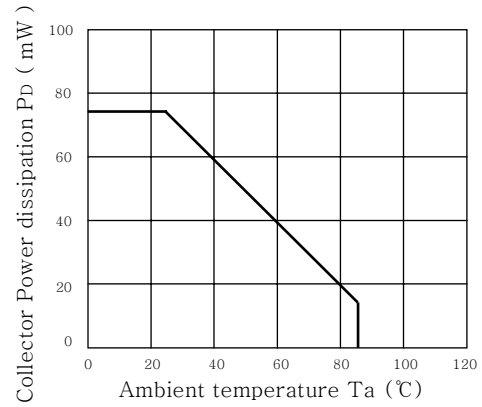


Fig.2 Collector Power dissipation vs. Ambient temperature

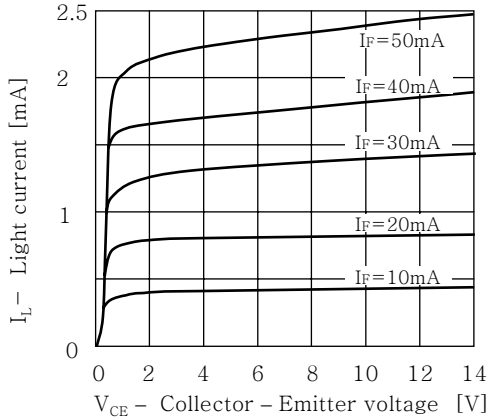


Fig.3 Light current vs. Collector - Emitter voltage

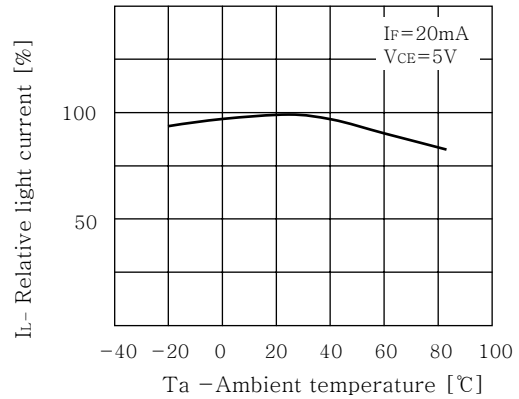


Fig.4 Relative light current vs. Ambient temperature

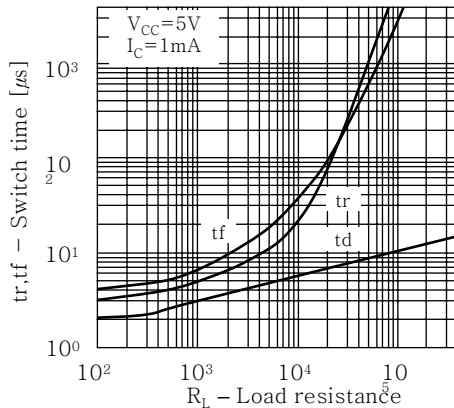


Fig.5 Switching time vs. Load resistance

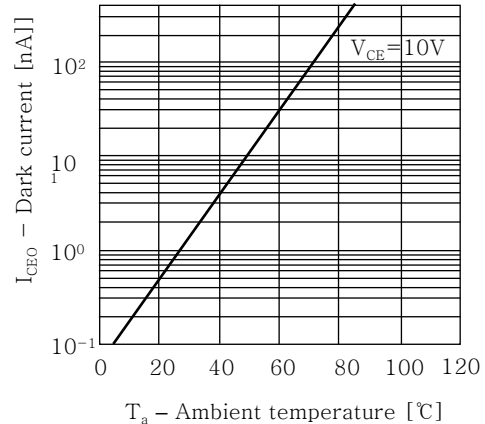


Fig.6 Dark current vs. Ambient temperature

■ Outline Dimensions (Unit : mm)

