

LG-ITR2C-191312

DATA SHEET

SPEC.NO. : SZ21101102
DATE : 2021/10/11
REV. : A/0

Approved By:

Checked By:

Prepared By:

■ Features

- Fast response time
- High analytic
- Cut-off visible wavelength $\lambda_p=940\text{nm}$
- High sensitivity
- Pb free
- The product itself will remain within RoHS compliant version

■ Description

- The ITR2C-191312 consist of an infrared emitting diode and an silicon phototransistor, encased side-by-side on converging optical axis in a black thermoplastic housing,
- The phototransistor receives radiation from the IR LED only .This is the normal situation.
- But when an object is in between , phototransistor could not receives the radiation.

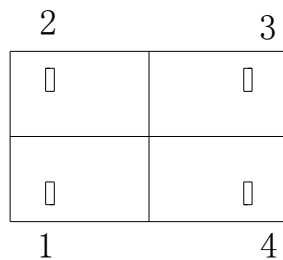
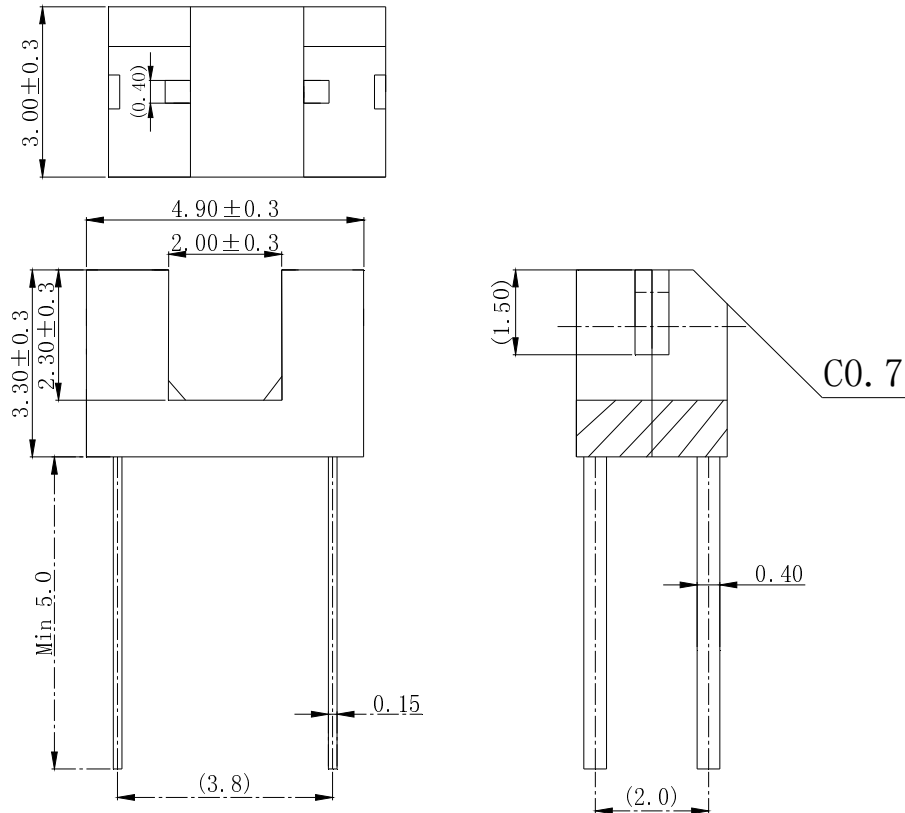
■ Applications

- Mouse Copier
- Switch Scanner
- Floppy disk driver
- Non-contact Switching
- For Direct Board

■ Device Selection Guide

Device No.	Chip Material	LENS COLOR
IR	GaAs	Water Clear
PT	Silicon	Black

■ Package Dimensions



1: Cathode
 2: Anode
 3: Collector
 4: Emitter

Notes:

1. All dimensions are in millimeters.
2. Tolerance is $\pm 0.20\text{mm}$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.

Absolute Maximum Ratings (Ta=25°C)

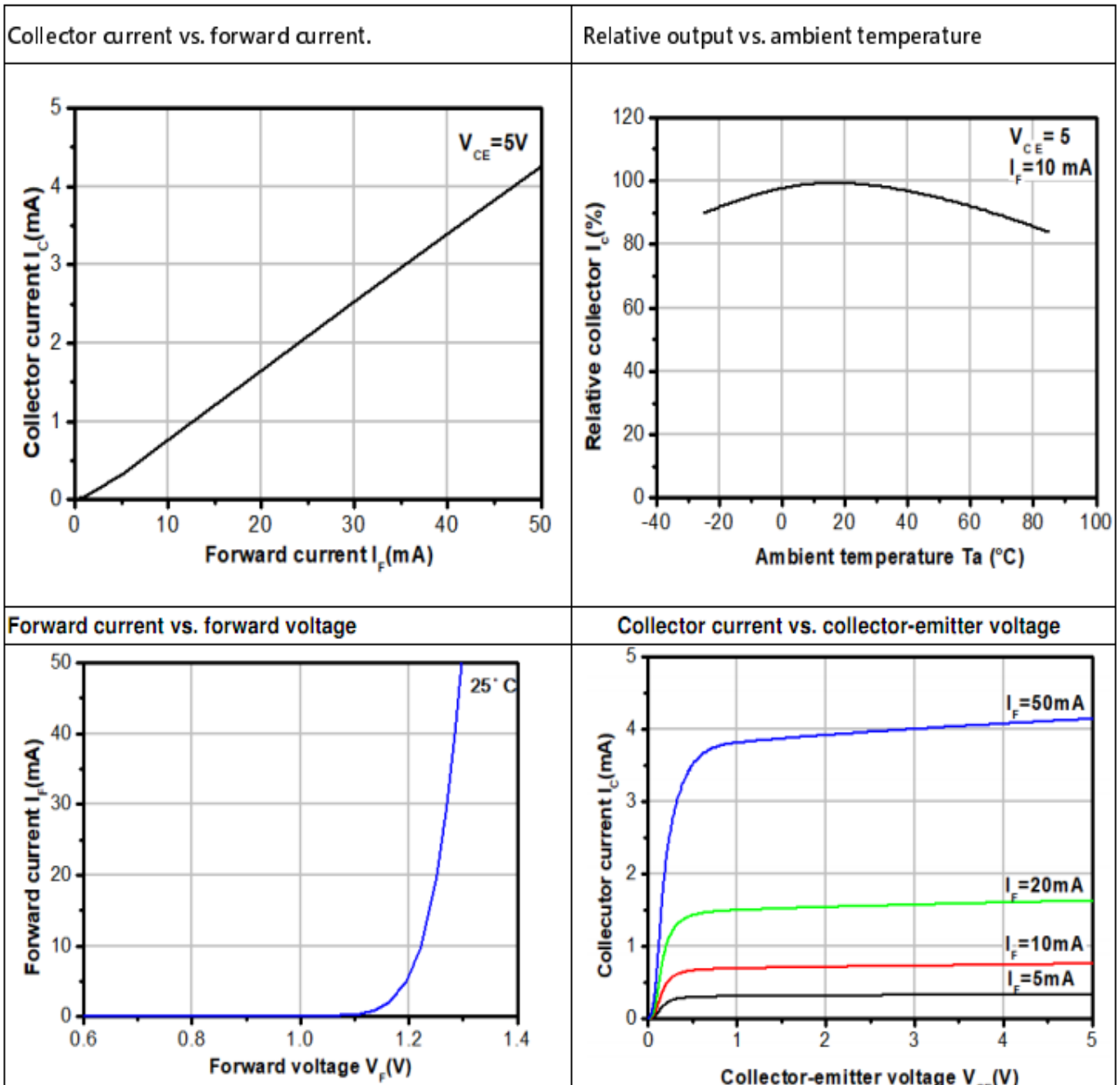
Parameter		Symbol Ratings	Unit	
Input	Power Dissipation at (or below) 25°C Free Air Temperature	Pd	75	mW
	Reverse Voltage	VR	5	V
	Forward Current	IF	30	mA
	Peak Forward Current (*1) Pulse width ≤ 100μs, Duty cycle=1%	IFP	300	mA
	Collector Power Dissipation	PC	75	mW
Output	Collector Current	IC	20	mA
	Collector-Emitter Voltage	B VCEO	70	V
	Emitter-Collector Voltage	B VECO	7	V
	Operating Temperature	Topr	-20~+65	°C
Storage Temperature		Tstg	-30~+70	°C
Lead Soldering Temperature (*2) (1/16 inch form body for 5 seconds)		Tsol	260	°C

(*1) $t_w=100 \mu\text{sec.}$, $T=10 \text{ msec.}$ (*2) $t=5 \text{ Sec}$

Electro-Optical Characteristics (Ta=25°C)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Conditions
Input	Forward Voltage	VF	---	1.2	1.6	V	IF=20mA
	Reverse Current	IR	---	---	10	μA	VR=5V
	Peak Wavelength	λP	---	940	---	nm	IF=20mA
Output	Dark Current	ICEO	---	---	100	nA	VCE=20V, Ee=0mW/cm2
	C-E Saturation Voltage	VCE(sat)	---	---	0.4	V	IC=2mA, Ee=1mW/cm2
Transfer Characteristics	Collect Current	IC(ON)	0.15	---	---	mA	VCE=5V IF=20mA
	Rise time	tr	---	15	---	μsec	VCE=5V IC=1mA RL=1K
	Fall time	tf	---	15	---	μsec	

■ Typical Electrical/Optical/Characteristics Curves



■ Typical Electrical/Optical/Characteristics Curves

