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DATA SHEET

PART NO. : PA-ITRLT152

REV : A / 0

CUSTOMER'S APPROVAL : _____

DCC : _____

DRAWING NO. : DS-81P-22-0016

DATE : 2022-07-23

Page : 1

LD-R/E020

Descriptions

The PA-ITRLT152 consist of an infrared emitting diode and an NPN silicon phototransistor, encased side-by-side onconverging optical axis in a black thermoplastic housing.The phototransistor receives radiation from the IR only .Thisis the normal situation. But when an object is in between , phototr ansistor could not receives the radiation.Foradditional component information , please refer to IR and PT.

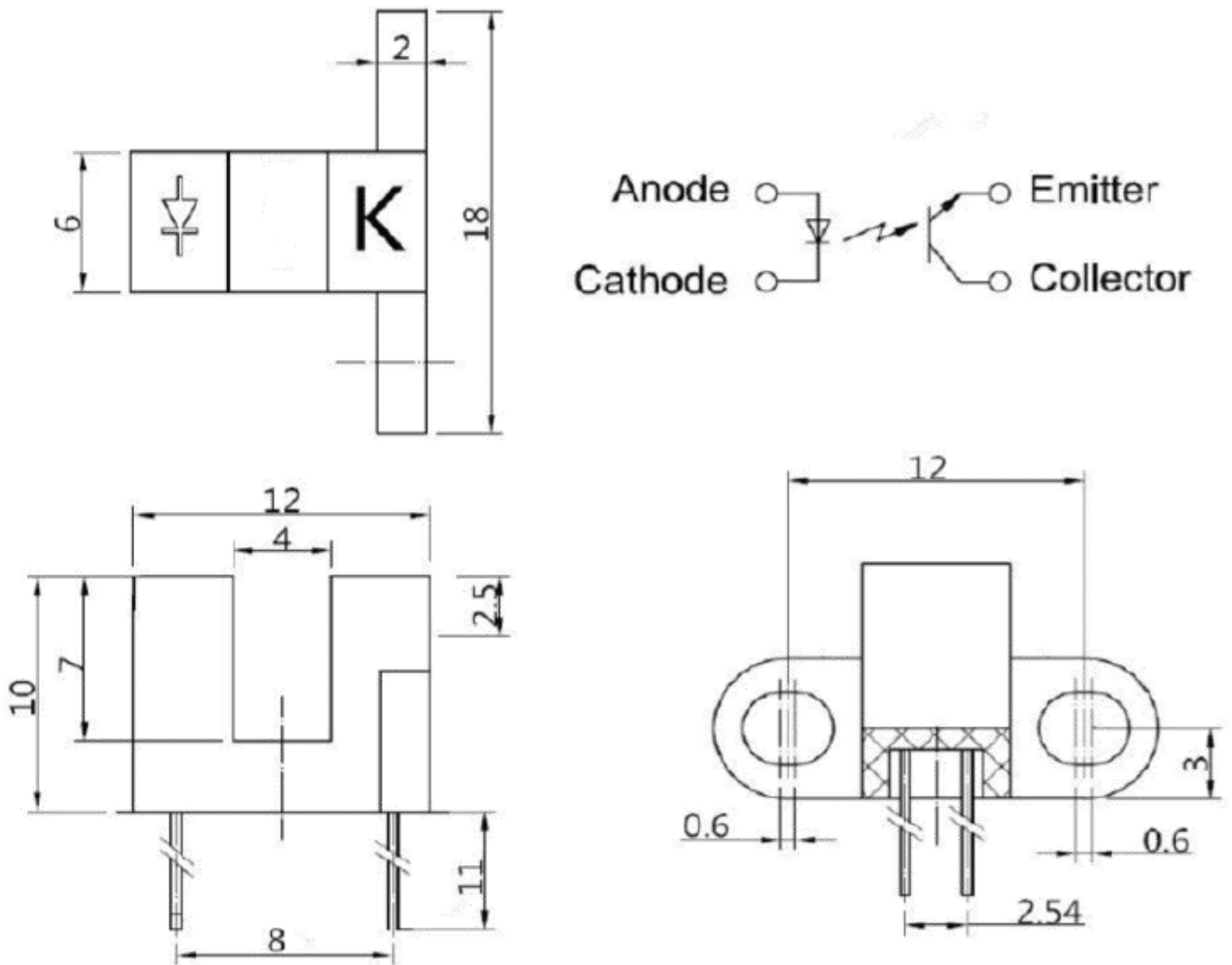
Features

- High reliability、 High radiant intensity、 Low forward voltage、
- Fast response time、 High photo sensitivity
- Cut-off visible wavelength $\lambda_p=940\text{nm}$
- Pb.Free、 RoHS compliant version

Applications

- Printer、 Non-contact Switching
- Intelligent Electronic Products
- Industrial Intelligent Equipment
- Safety Application Products

Package Dimension



Note:

- 1.All dimensions are in millimeters.
- 2.Tolerances unless dimensions $\pm 0.3\text{mm}$.
- 3.Lead spacing is measured where the lead emerge from the package



INFRARED REMOTE CONTROL RECEIVER MODULE

PA-ITRLT152

REV:A / 0

Absolute Maximum Ratings

Parameter (Ta=25°C)		Symbol	Ratings	Unit
Input Emitter	Power Dissipation *1	Pd	75	mW
	Reverse Voltage	VR	5	V
	Forward Current	IF	50	mA
	Peak Forward Current *2	IFP	1	A
Output Detector	Power Dissipation *1	Pd	75	mW
	Collector-Emitter Voltage	VCEO	30	V
	Emitter-Collector Voltage	VECO	5	V
	Collector Current	IC(ON)	20	mA
Operating Temperature		Topr	-25~+85	°C
Storage Temperature		Tstg	-40~+85	°C
Lead Soldering Temperature*3		Tsol	260	°C

below 25 Free Air Temperature

1% Pulse width ≤ 100μs, Duty cycle= 1%

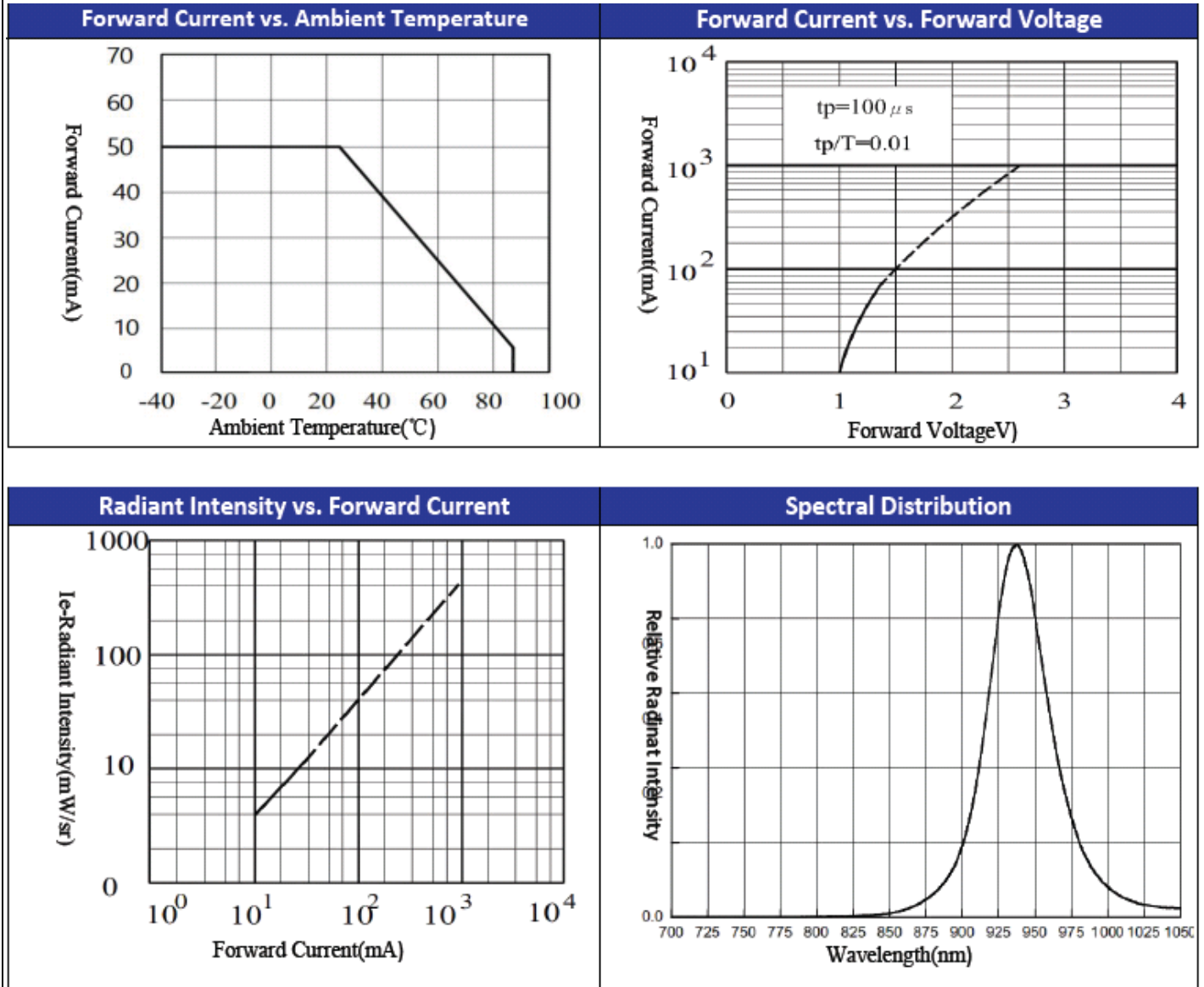
2mm form body for 5 seconds

Electro-Optical Characteristics

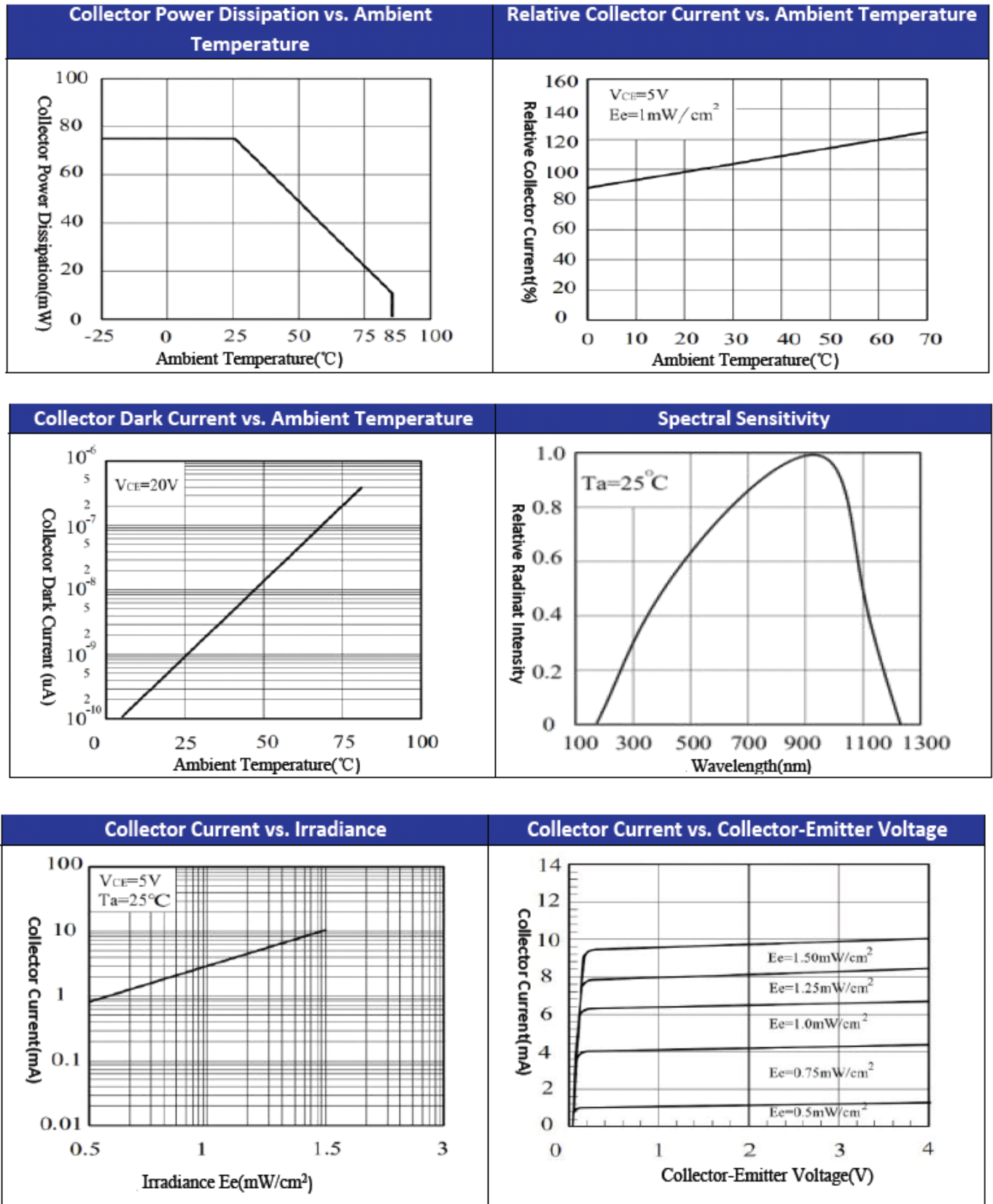
Parameter (Ta=25°C)		Symbol	Condition	Min.	Typ.	Max.	Units
Input	Forward Voltage	VF	IF=20mA	-	1.2	1.	V
			IF=100mA*2	-	1.4	1.85	
			IF=1A *2	-	2.6	4.0	
	Peak Wavelength	λp	IF=20mA	-	940	-	nm
Reverse Current		IR	VR=5V	-	-	1	μA
Output	Dark Current	ICEO	Ee=0mW/cm ² VCE=20V	-	-	100	nA
	C-E Saturation Voltage	VCE(SAT)	IC=2mA Ee=1mW/cm ²	-	-	0.4	V
Transfer Characteristics	Rise Time	tr	VCE=5V	-	15	-	μS
	Fall Time	tf		IC=1mA	-	15	
	Collector Current	IC(ON)	IF=20mA VCE=5V	0.5	-	10	mA

Pulse width ≤ 100μs, Duty cycle= 1%

Typical Electrical/Optical/Characteristics Curves for IR

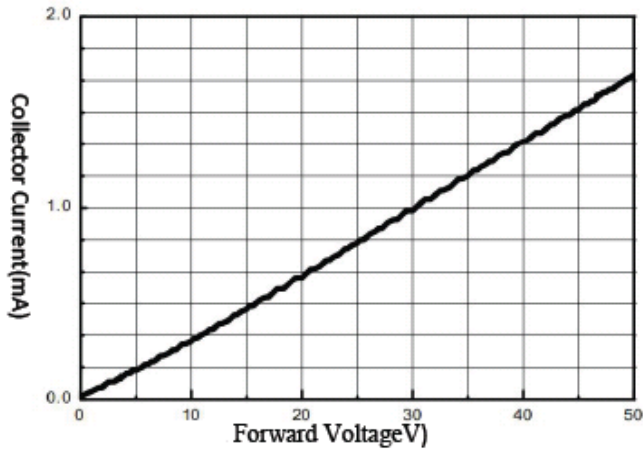


Typical Electrical/Optical/Characteristics Curves for PT

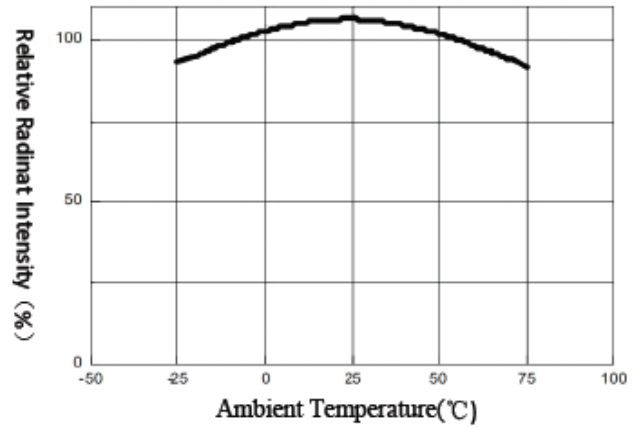


Typical Electro-Optical Characteristics Curves-ITR

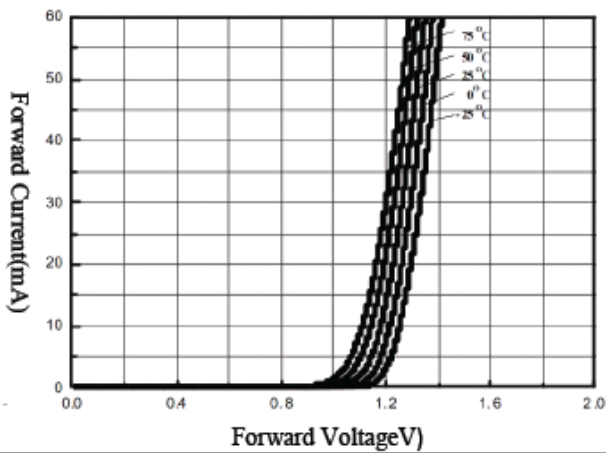
Collector Current vs. Forward Voltage



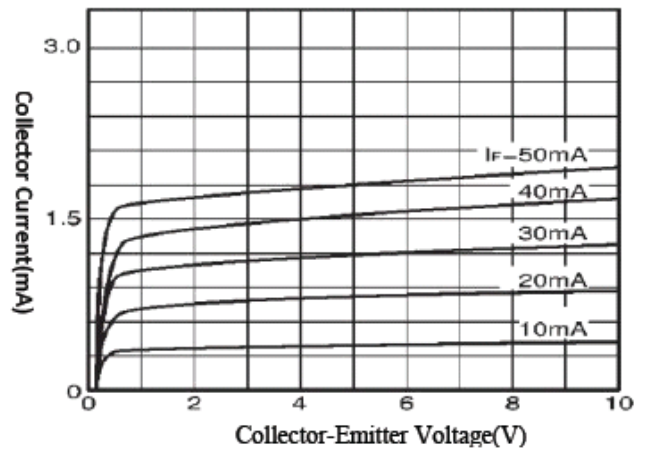
Relative Output vs. Ambient Temperature



Forward Current vs. Forward Voltage



Output Characteristics





Notes

1. Above specification may be changed without notice. WE will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instruction for using outlined in these specification sheets. Para light assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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