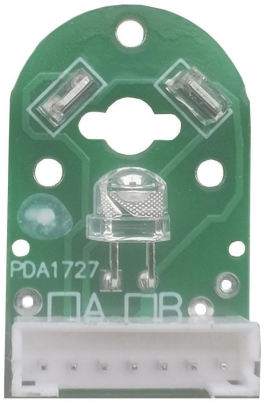
Technical Data Sheet

Galvanometer motor photoelectric sensor： PDA1727B

■ Features



. 2 photodiodes

. Fast response time

. High photo sensitivity

. Pb free

. The product itself will remain within RoHS compliant version.

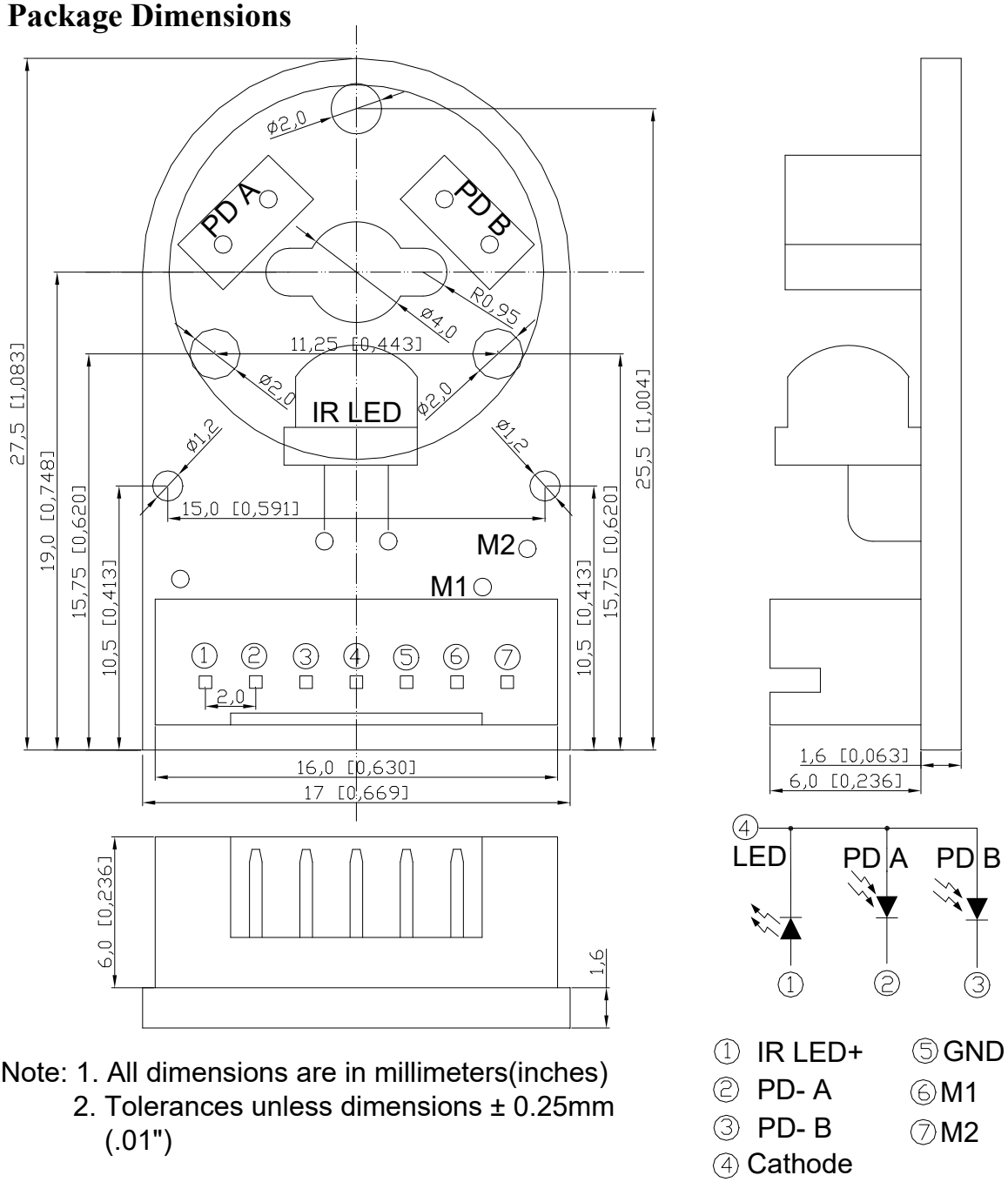
■ Descriptions

PDA1727B is composed of 2 high-speed and high-sensitivity photodiodes distributed on the PCB board for detection the infrared light emitted by the Infrared LED is judged by the difference in the photosensitive current of the two photosensitive tubes location.

■ Applications

. Galvanometer motor

■ Package Dimensions



Note: 1. All dimensions are in millimeters(inches)
2. Tolerances unless dimensions ± 0.25mm (.01")

① IR LED+
② PD- A
③ PD- B
④ Cathode
⑤ GND
⑥ M1
⑦ M2

■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Rating	Units
PD Reverse Voltage	V_R	30	V
IR Reverse Voltage	V_R	5	V
IR Continuous Forward Current	I_F	100	mA
Operating Temperature	Topr	-20 ~ +85	℃
Storage Temperature	Tstg	-40 ~ +85	℃

■ Electro-Optical Characteristics (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
IR Peak Wavelength	λ_p	---	---	940	---	nm
IR Forward Voltage	V_F	I_F=20mA	---	1.2	1.5	V
IR Reverse Voltage	V_R	---	5.0	---	---	V
IR Continuous Forward Current	I_F	---	---	---	100	mA
PD Open-Circuit Voltage	V_{OC}	IR I_F=20mA	---	-0.4	---	V
PD Short- Circuit Current	I_{SC}	IR I_F=20mA	---	-90	---	μA
PD Dark Current	Id	IR I_F=0mA Ev=0 Lux V_R=10V	---	---	10	nA
PD Reverse Breakdown Voltage	BV_R	IR I_F=0mA I_R=100 μA	30	---	---	V
Rise/Fall Time	t_r/t_f	V_R=10V R_L=1KΩ		45/45		nS

■ Notes

1. Above specification may be changed without notice. SHUGUAN will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. SHUGUAN 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.
3. These specification sheets include materials protected under copyright of SHUGUAN corporation. Please don't reproduce or cause anyone to reproduce them without SHUGUAN's consent.
4. Static electricity and surges will cause changes in product characteristics, such as forward voltage reduction, etc. If the situation is serious, it will even damage the product, so effective anti-static measures must be taken during use. All related equipment and machines should be properly grounded, and other measures against static electricity and surges must be taken. The use of anti-static wristbands, anti-static mats, anti-static work clothes, work shoes, gloves, and anti-static containers are all effective measures to prevent static electricity and surges.
5. When designing the circuit, the current passing through the product cannot exceed the specified maximum value, and a current limiting resistor must be used at the same time, otherwise a small voltage change will cause a large current change, which may lead to product damage.
6. This kind of products due to the customer's external dimensions, performance parameters and other requirements are different, standard products are difficult to meet customer needs, the company provides customized services, can be developed and designed by our company new products, can also provide customers with processing and generation services.