

Characteristics

Infrared Light Emitting Diodes

These LEDs can be used for various remote control applications.

Package	Part No.	Feature	Standard Characteristics							
			IF (mA)	PO (mW)	IF (mA)	VF (V)	IF (mA)	λP (nm)	tr, tf (μs)	θ1/2 (deg)
3 φ resin	SIR-34ST3F	Best suited for remote controller	100	8.0	50	1.3	100	950	1	27
	SIR-320ST3F	Best suited for card remote controller	75	9.0	50	1.2	50	940	1	1E
	SIR-341ST3F	Small yet high output power	75	8.4	50	1.3	50	940	1	1E
5 φ resin	SIR-56ST3F	Best suited for remote controller	100	8.0	50	1.3	100	950	1	27
	SIR-563ST3F	Best suited for remote controller. High output power	100	11.0	50	1.34	50	940	1	2E
	SIR-568ST3F	High-speed LED for optical communications	100	13.0	50	1.6	50	850	fc=50MHz	15
Side-view, resin	SIM-20ST	Molded type, general purpose	50	7.0	50	1.25	50	950	1	15
	SIM-22ST	Molded type, general purpose	50	7.0	50	1.25	50	950	1	3C

Phototransistors

Highly reliable, high output phototransistors for small precision equipment. Side-view and top-view configurations are available.

Package	Part No.	Feature	Cut Visible Light	Absolute Maximum Rating		Standard Characteristics					
				VCE0 (V)	Pc Max. (mW)	ICE0 Max. (μA)	VCE (V)	Ic (mA)	λP (nm)	tr, tf (μs)	θ1/2 (deg)
3 φ resin	RPT-34PB3F	Cut visible light	○	32	150	0.5	10	2.0Min	800	10	36
	RPT-38PB3F	Cut visible light	○	32	150	0.5	10	2.0Min	800	10	36
Side-view, resin	RPM-20PB	Cut visible light	○	32	100	0.5	10	0.5Min	800	10	14
	RPM-22PB	Cut visible light, wide directivity	○	32	100	0.5	10	0.48Min	800	10	32
	RPM-25PT	2-bit	—	30	100	0.5	10	0.025Min	800	10	—

Photointerruptors

Highly reliable, high resolution product packaged as a standard molded product.

● Phototransistor Output (Molded Type)

Package	Part No.	Feature	Absolute Maximum Rating		Standard Characteristics						
			IF (mA)	VCE0 (V)	Detection Groove Width (mm)	Slit Width (mm)	Ic (mA)	VCE (V)	IF (mA)	ICE0 Max. (μA)	tr, tf (μs)
Molded in one small package	RPI-243	2mm gap	50	30	2.0	0.4	0.5Min.	5	20	0.5	10
	RPI-244	Long lead	50	30	2.0	0.4	0.5Min.	5	20	0.5	10
	RPI-246	High resolution (slit width 0.2mm)	50	30	2.0	0.2	0.35Min.	5	20	0.5	10
	RPI-352	3mm gap	50	30	3.0	0.4	0.2Min.	5	20	0.5	10
	RPI-441	4mm gap	50	30	4.0	0.5	0.2Min.	5	20	0.5	10
	RPI-131	Easy-to-mount, two molded types, general purpose	50	30	1.2	0.4	0.7Min.	5	20	0.5	10
Molded in one ultraminiature package	RPI-121	Ultraminiature	50	30	1.0	0.4	0.7Min.	5	20	0.5	10
	RPI-122	w/mounting ribs	50	30	0.8	0.25	0.18Min.	0.7	3	0.5	10
	RPI-124	High resolution (slit width 0.15mm)	50	30	1.0	0.15	0.3Min.	5	20	0.5	10
	RPI-221	Wide gap (2mm)	50	30	2.0	0.4	0.2Min.	5	20	0.5	10
Actuator type	RPI-222	High resolution (slit width 0.2mm)	50	30	2.0	0.2	0.18Min.	5	10	0.5	10
	RPI-5100	Molded in one small package	50	30	Actuator type		0.2Min.	5	20	0.5	10
	RPI-5200	Molded in one small package	50	30	Actuator type		0.2Min.	5	20	0.5	10

● Phototransistor Output (Cased Type)

Package	Part No.	Feature	Absolute Maximum Rating		Standard Characteristics						
			IF (mA)	VCE0 (V)	Detection Groove Width (mm)	Slit Width (mm)	Ic (mA)	VCE (V)	IF (mA)	ICE0 Max. (μA)	tr, tf (μs)
PCB direct mount type	RPI-574	Automatic placement	50	30	5	0.5	0.5Min.	5	20	0.5	10

● Digital Output (Molded Type)

Package	Part No.	Feature	Absolute Maximum Rating			Standard Characteristics					Output Type
			IF (mA)	VCC (V)	IO (mA)	Detection Groove Width (mm)	Slit Width (mm)	VF (V)	VOL (V)	IFHL (mA)	
Molded in one small package	RPI-1133	Double molded type	50	7	10	1.0	0.3	1.1	0.35Max.	* 2.5	OFF when light beam is interrupted

* IFHL Max. value

● Digital Output (Cased Type)

Package	Part No.	Feature	Absolute Maximum Rating			Standard Characteristics					Output Scheme
			I _F (mA)	V _{CC} (V)	I _O (mA)	Detection Groove Width (mm)	Slit Width (mm)	V _F (V)	V _{OL} (V)	I _{FLH} (mA)	
Cased type	RPI-1391	Direct mounted type w/lead	50	17	20	4	0.5	1.3	0.14	1.6	OFF when light beam is interrupted

Reflective Photosensors (Photoreflector)

Package	Part No.	Feature	Absolute Maximum Rating			Standard Characteristics					
			I _F (mA)	V _{CEO} (V)	Detection Distance (mm)	I _C (μA)	V _{CE} (V)	I _F (mA)	I _{CEO} Max. (μA)	tr, tf (μs)	V _{CE} (sat) (V)
Cased type	RPR-359F	Detection distance 3.5mm	50	30	3.5	500	5	20	0.5	10	0.1
	RPR-220	Detection distance 6mm	50	30	6.0	300	2	10	0.5	10	0.1

Tilt Angle Sensors

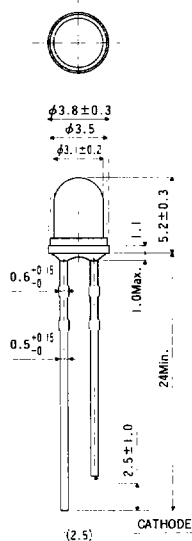
Package	Part No.	Feature	Absolute Maximum Rating		Standard Characteristics				
			I _F (mA)	V _{CEO} (V)	I _C (mA)	V _{CE} (V)	I _F (mA)	I _{CEO} Max. (μA)	tr, tf (μs)
Molded type	RPI-1020	Ultraminiature tilt angle sensor	50	30	1.0Min.	5	20	0.5	10

Package (Dimensions Diagram)

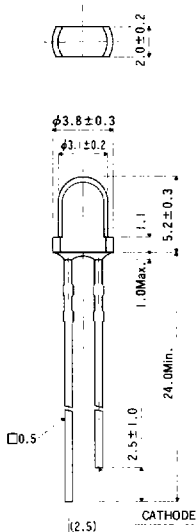
(Unit : mm)

Infrared Light Emitting Diodes

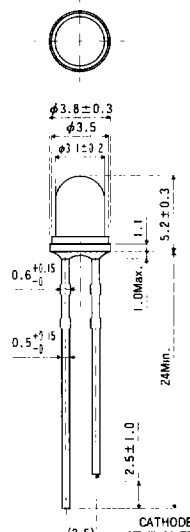
● SIR-34ST3F



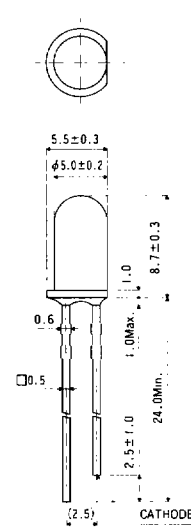
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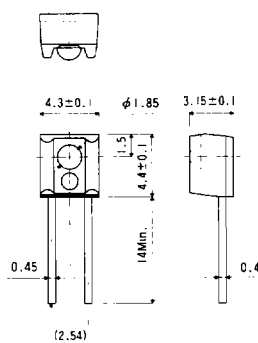
● SIR-341ST3F



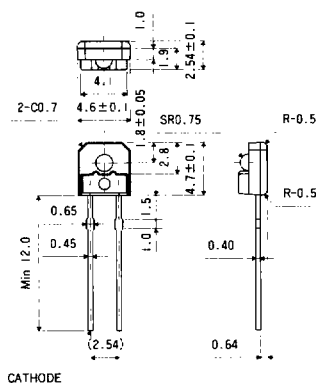
● SIR-56ST3F • 563ST3F 568ST3F



● SIM-20ST

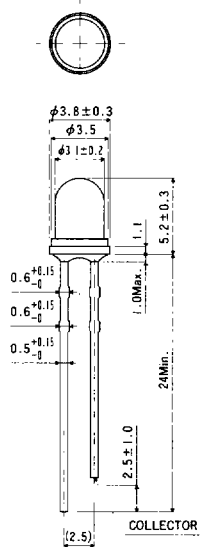


● SIM-22ST

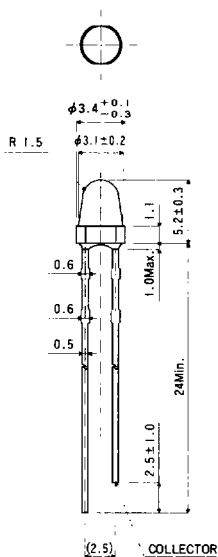


Phototransistors

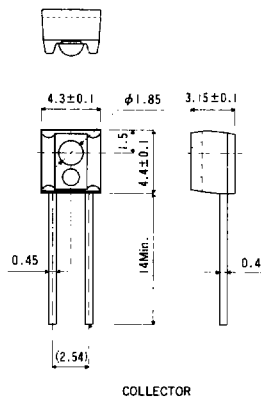
●RPT-34PB3F



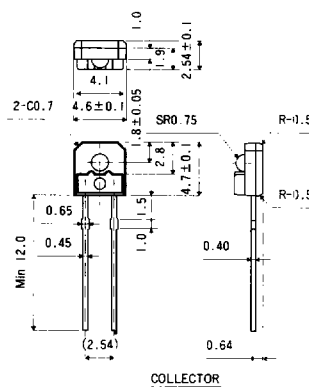
●RPT-38PB3F



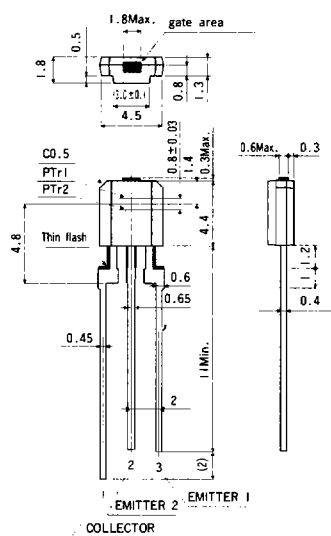
●RPM-20PB



●RPM-22PB

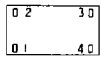
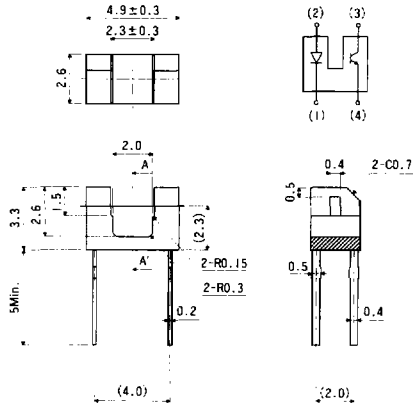


●RPM-25PT



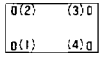
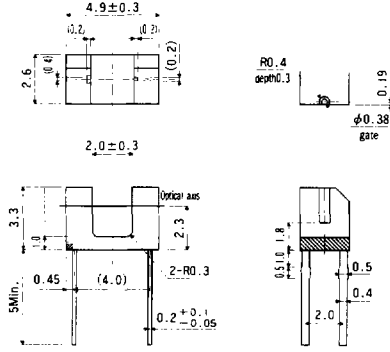
ROHM

●RPI-221



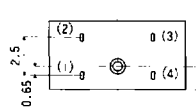
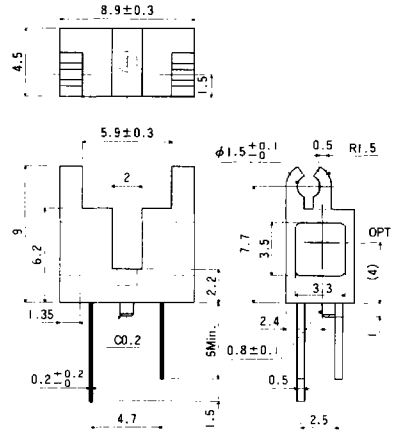
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- (2) Anode
- (3) Collector
- (4) Emitter

●RPI-222



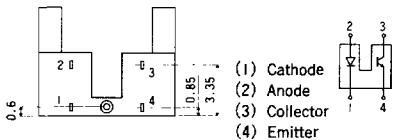
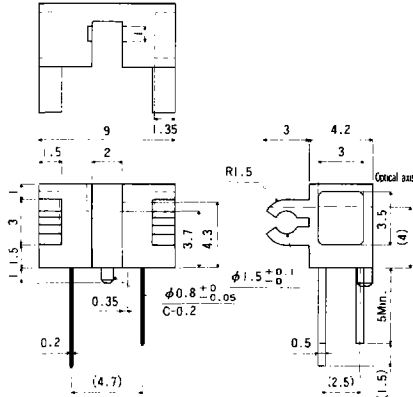
- (1) Cathode
- (2) Anode
- (3) Collector
- (4) Emitter

●RPI-5100



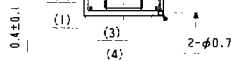
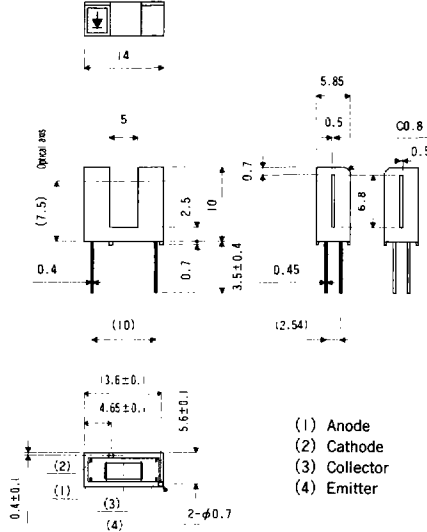
- (1) Cathode
- (2) Anode
- (3) Collector
- (4) Emitter

●RPI-5200



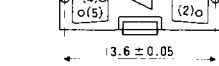
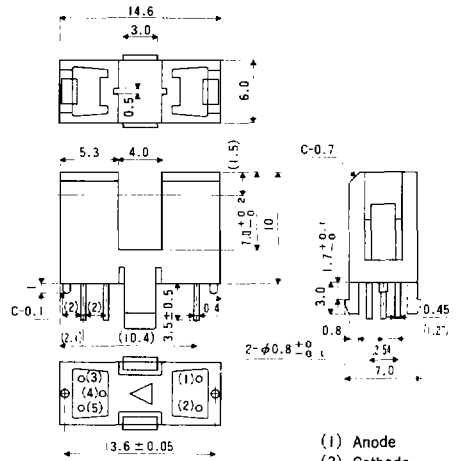
- (1) Cathode
- (2) Anode
- (3) Collector
- (4) Emitter

●RPI-574



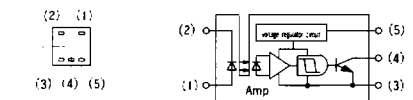
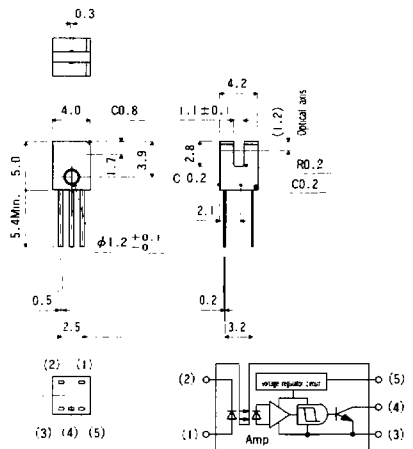
- (1) Anode
- (2) Cathode
- (3) Collector
- (4) Emitter

●RPI-1391



- (1) Anode
- (2) Cathode
- (3) GND
- (4) Vcc
- (5) Vcc

●RPI-1133

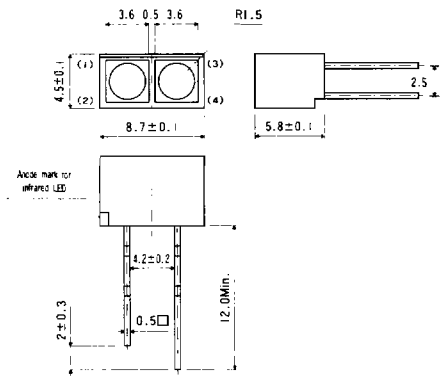


- (1) Anode
- (2) Cathode
- (3) GND
- (4) Vcc
- (5) Vcc

Sensors

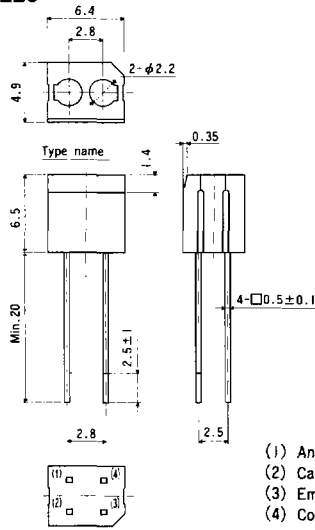
Photoreflector

● RPR-359F



- (1) Cathode
- (2) Anode
- (3) Emitter
- (4) Collector

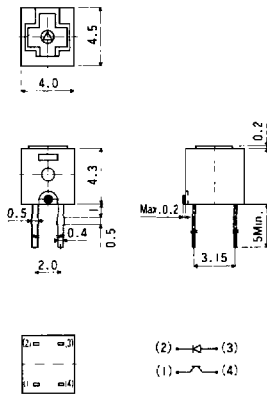
● RPR-220



- (1) Anode
- (2) Cathode
- (3) Emitter
- (4) Collector

Tilt Angle Sensor

● RPI-1020



- (1) Emitter
- (2) Cathode
- (3) Anode
- (4) Collector