INDEX

Infrared LED

IR Emitter.....P1-4
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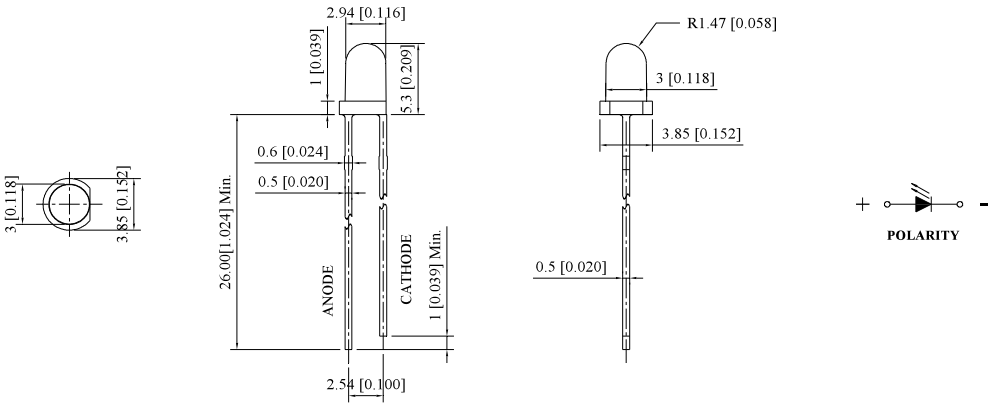
Luckylight

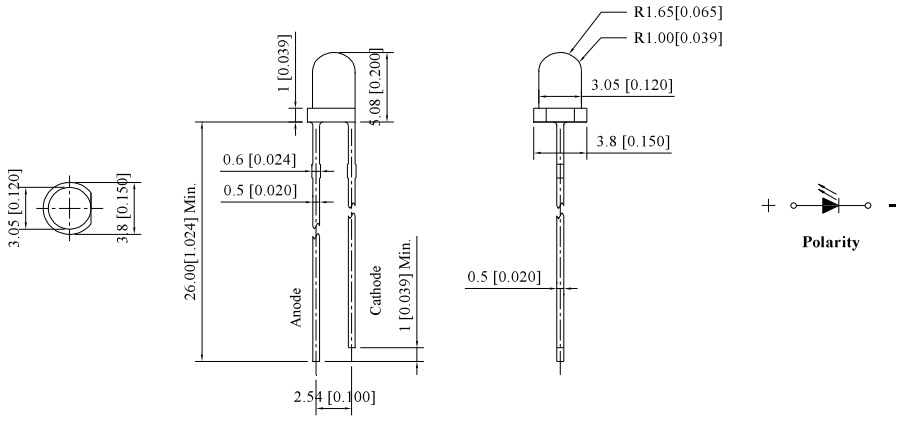
Part Number	Chip Material	Emitting Color	λp (nm) / x	λd (nm) / y	Lens Color	VF (V)		Power (mW/Sr)			Viewing Angle
						Typ.	Max.	IF=mA	Min.	Typ.	2θ ½

3mm Round Standard Infrared LED, T-1



304IRC2E-5AC	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	6.00	12.00	15

3mm Round Standard Infrared LED, T-1

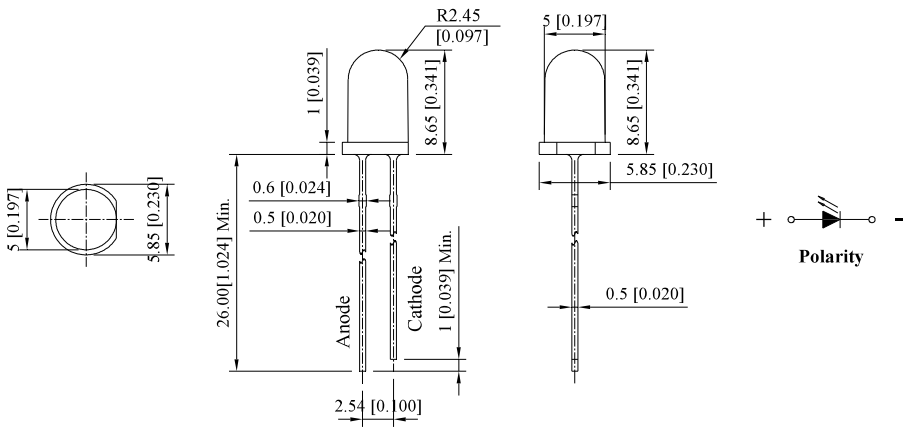


304IRC4B-5AD	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	6.00	10.00	30
304IRT4B-5AE	AlGaAs/GaAs	Infrared	940	—	Blue Transparent	1.20	1.50		5.00	8.00	40
304HIRC4B-5CD	AlGaAs/AlGaAs	Infrared	880	—	Water Clear	1.30	1.60		8.00	10.00	30
304HIRT4B-5CE	AlGaAs/AlGaAs	Infrared	880	—	Blue Transparent	1.30	1.60		6.00	12.00	45
304SIRC4B-5AD	AlGaAs/AlGaAs	Infrared	850	—	Water Clear	1.40	1.60		6.00	12.00	30

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

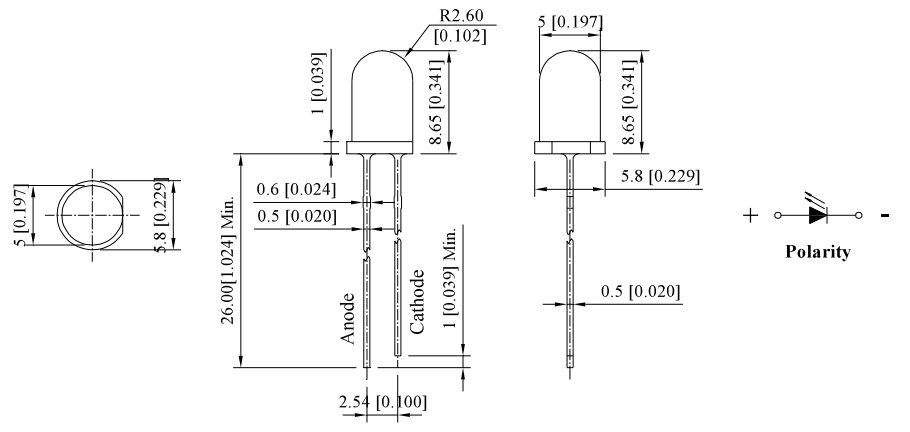
Part Number	Chip Material	Emitting Color	λp (nm) / x	λd (nm) / y	Lens Color	VF (V)		Power (mW/Sr)			Viewing Angle
						Typ.	Max.	IF=mA	Min.	Typ.	2θ ½

5mm Round Standard Infrared LED, T-1 3/4



503IRC2E-5AC	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	7.80	12.00	15
503IRC2E-5AE	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50		6.00	12.00	45
503IRT2E-5AC	AlGaAs/GaAs	Infrared	940	—	Blue Transparent	1.20	1.50		7.00	10.00	15
503HIRC2E-5CC	AlGaAs/AlGaAs	Infrared	880	—	Water Clear	1.30	1.60		7.80	12.00	
503HIRC2E-5CE	AlGaAs/AlGaAs	Infrared	880	—	Water Clear	1.30	1.60		6.50	13.00	45
503HIRT2E-5CC	AlGaAs/AlGaAs	Infrared	880	—	Blue Transparent	1.30	1.60		7.00	10.00	15
503SIRC2E-5AC	AlGaAs/AlGaAs	Infrared	850	—	Water Clear	1.40	1.60		7.80	15.00	
503SIRC2E-5AE	AlGaAs/AlGaAs	Infrared	850	—	Water Clear	1.40	1.60		8.00	15.00	45
503KIRC2E-4CE	AlGaAs/AlGaAs	Infrared	830	—	Water Clear	1.40	1.60		6.00	13.00	

5mm Round Standard Infrared LED, T-1 3/4



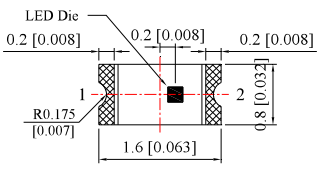
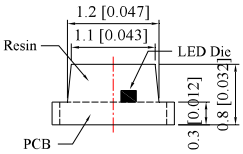
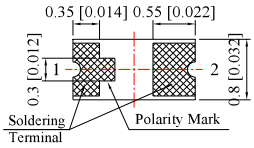
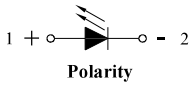
503IRC2V-5AD	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	7.80	12.00	30
503IRT2V-5AD	AlGaAs/GaAs	Infrared	940	—	Blue Transparent	1.20	1.50		6.00	10.00	
503HIRC2V-5CD	AlGaAs/AlGaAs	Infrared	880	—	Water Clear	1.30	1.60		7.00	13.50	
503HIRT2V-5CD	AlGaAs/AlGaAs	Infrared	880	—	Blue Transparent	1.30	1.60		6.50	13.00	
503SIRC2V-5AD	AlGaAs/AlGaAs	Infrared	850	—	Water Clear	1.40	1.60		7.80	15.00	
503KIRC2V-4CD	AlGaAs/AlGaAs	Infrared	830	—	Water Clear	1.40	1.60		7.80	15.00	

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

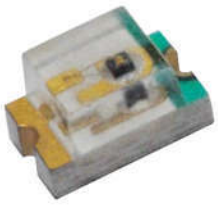
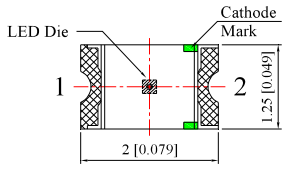
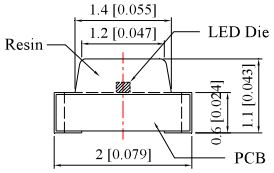
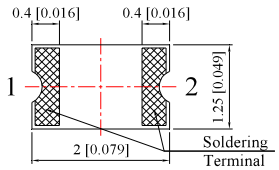
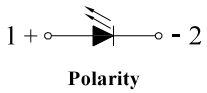
Luckylight

Part Number	Chip Material	Emitting Color	λp (nm) / x	λd (nm) / y	Lens Color	VF (V)		Power (mW/Sr)			Viewing Angle
						Typ.	Max.	IF=mA	Min.	Typ.	2θ ½

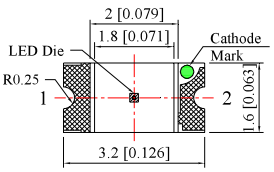
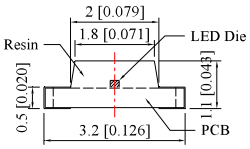
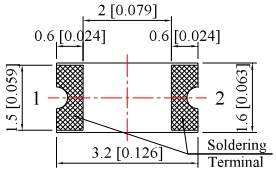
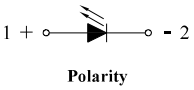
1.60mm×0.80mm×0.80mm (0603) SMD Infrared LED

										
S190IRC-2A	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	0.20	0.35	140

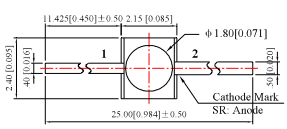
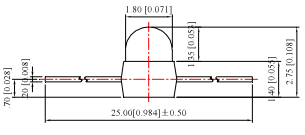
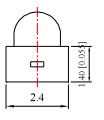
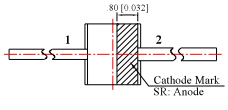
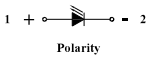
2.00mm×1.25mm×1.10mm (0805) SMD Infrared LED

										
S170IRC-2A	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	0.20	0.35	140

3.20mm×1.60mm×1.10mm (1206) SMD Infrared LED

										
S150IRC-2A	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	0.20	0.35	140

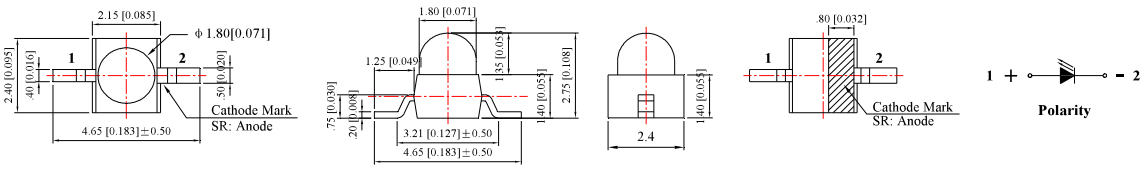
2.15mm×2.40mm×2.75mm (1.80mm Round) Subminiature Axial Infrared LED

											
AR180IRC-2A	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	3.00	6.00	25

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.10mm (.004") unless otherwise noted.
3. Specifications are subject to change without notice.

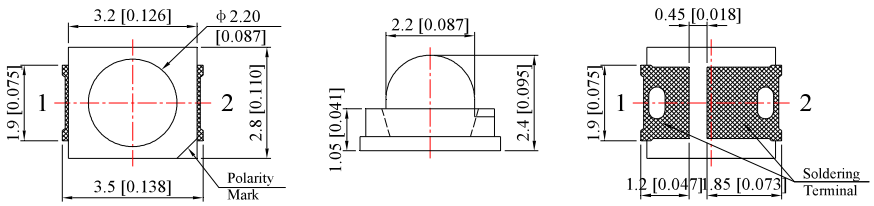
Part Number	Chip Material	Emitting Color	λp (nm) / x	λd (nm) / y	Lens Color	VF (V)		Power (mW/Sr)			Viewing Angle
						Typ.	Max.	IF=mA	Min.	Typ.	2θ ½

2.15mm×2.40mm×2.75mm (1.80mm Round) Subminiature Axial Infrared LED



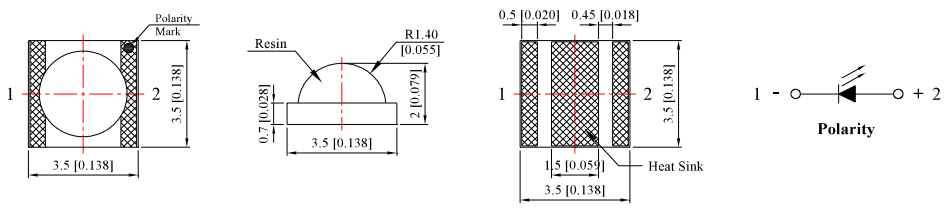
AR180IRC-2A/TR2	AlGaAs/GaAs	Infrared	940	—	Water Clear	1.20	1.50	20	3.00	6.00	25

3.50mm×2.80mm×2.40mm PLCC-2 Narrow Angle Mid Power Infrared LED



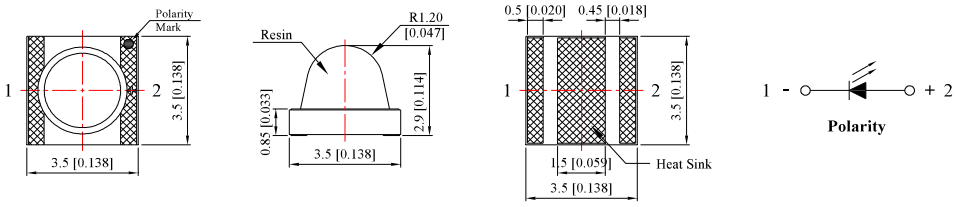
R2835SIR1C-2B	AlGaAs/GaAs	Infrared	850	—	Water Clear	1.40	1.60	100	100.00	140.00	30

1W, 3W High Power Infrared LED



C3535SIRC-2B	AlGaAs/GaAs	Infrared	850	—	Water Clear	1.80	2.00	350	130.00	160.00	120
								700	300.00	330.00	

1W, 3W Narrow Angle High Power Infrared LED



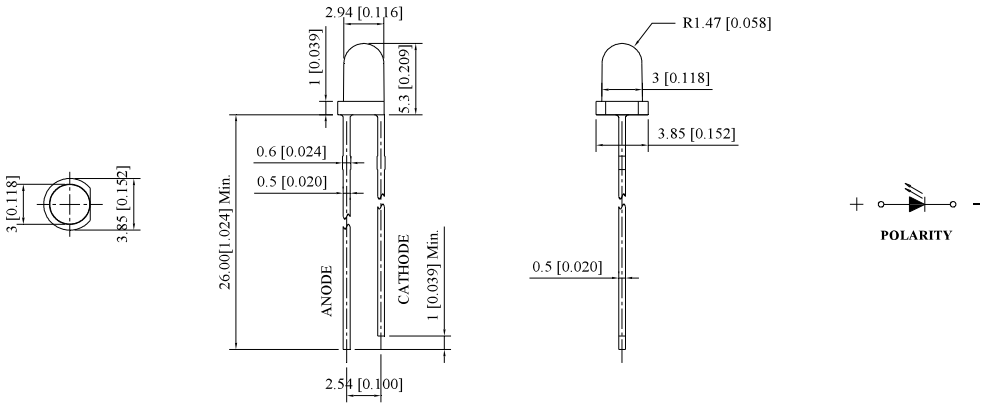
C3535SIR2C-3B	AlGaAs/GaAs	Infrared	850	—	Water Clear	1.80	2.00	350	130.00	160.00	60
								700	300.00	330.00	
								1000	400.00	430.00	

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.10mm (.004") unless otherwise noted.
3. Specifications are subject to change without notice.

Luckylight

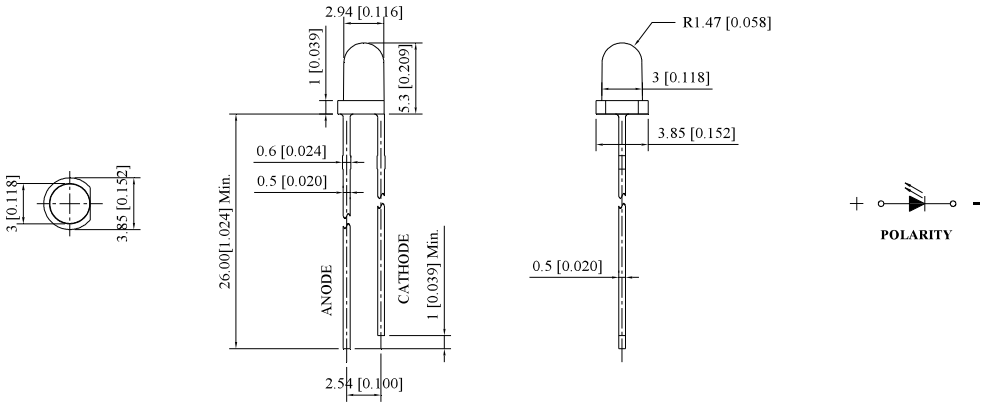
Part Number	Chip Material	Lens Color	Rise & Fall Time (ns)	$V_{(BR)R}$ Min. (V)	I_L		I_D	
					Ee=mW/cm²	Typ. (μA)	Ee=mW/cm²	Max. (nA)

3mm Silicon PIN Photodiode, T-1



304PDC2E-3A	Silicon	Water Clear	45/45	32	20	35	5	30

3mm Silicon PIN Photodiode, T-1

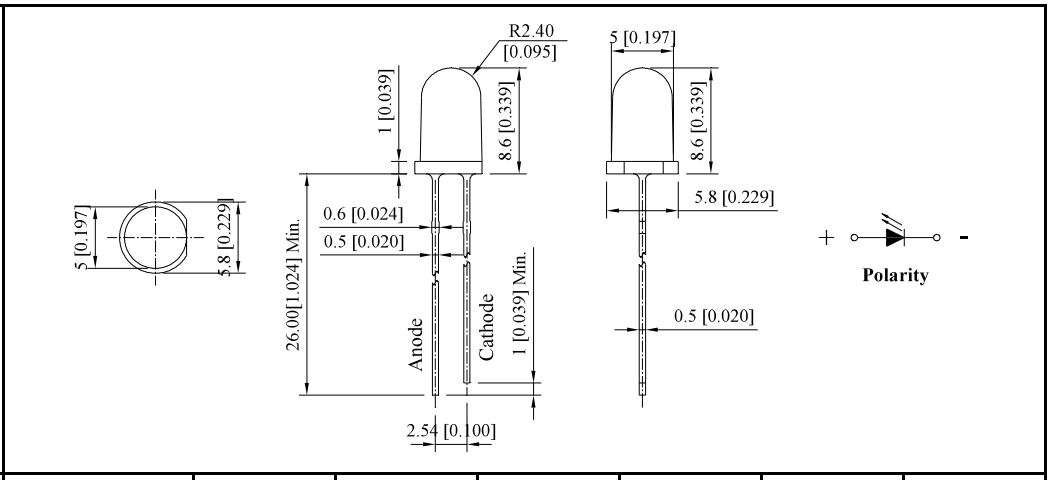


304PDD2E-3A	Silicon	Black	45/45	32	20	35	5	30

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

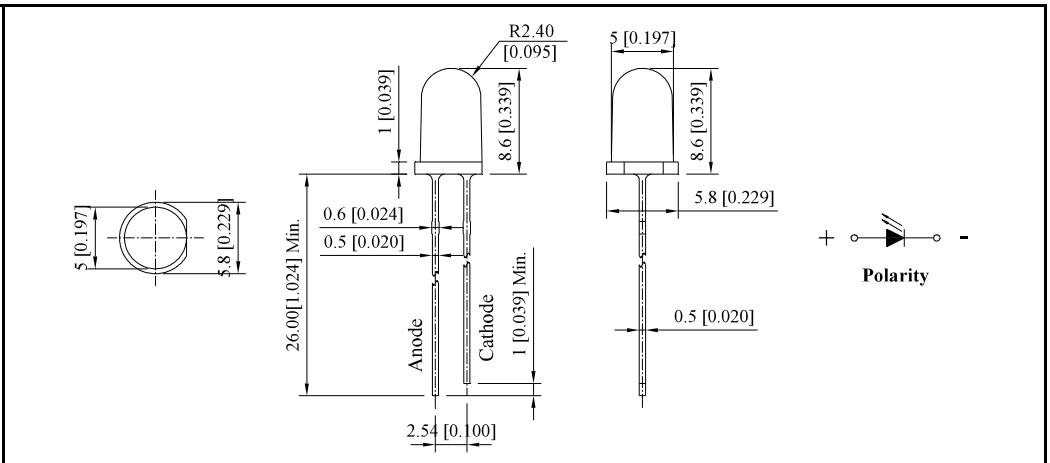
Part Number	Chip Material	Lens Color	Rise & Fall Time (ns)	$V_{(BR)R}$ Min. (V)	I_L		I_D	
					Ee=mW/cm²	Typ. (μA)	Ee=mW/cm²	Max. (nA)

5mm Silicon PIN Photodiode, T-1 3/4



504PDC2B-3A	Silicon	Water Clear	45/45	32	20	35	5	30

5mm Silicon PIN Photodiode, T-1 3/4



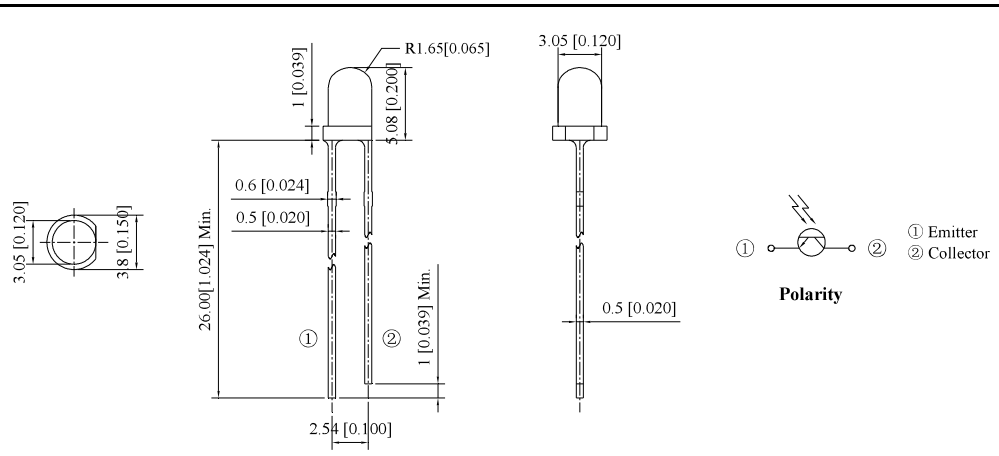
504PDD2B-3A	Silicon	Black	45/45	32	20	35	5	30

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

Luckylight

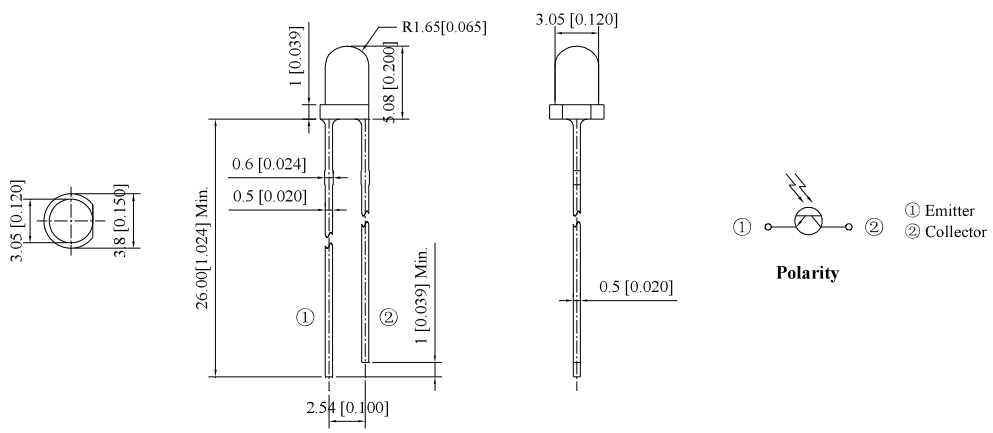
Part Number	Chip Material	Lens Color	Rise & Fall Time (μs)	BVCEO Min. (V)	VCE (SAT)		IC (ON)	
					Ee=mW/cm²	Max. (V)	Ee=mW/cm²	Min. (mA)

3mm Round Standard Phototransistor, T-1



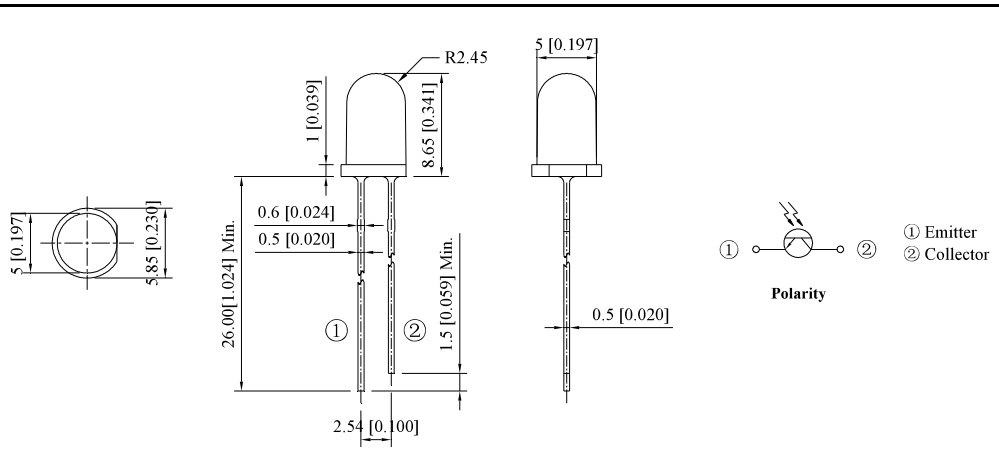
304PTC4B-1A	Silicon	Water Clear	15/15	30	1.00	0.40	1.00	0.70

3mm Round Standard Phototransistor, T-1



304PTD4B-1A	Silicon	Black	15/15	30	1.00	0.40	1.00	0.70

5mm Round Standard Phototransistor, T-1 3/4

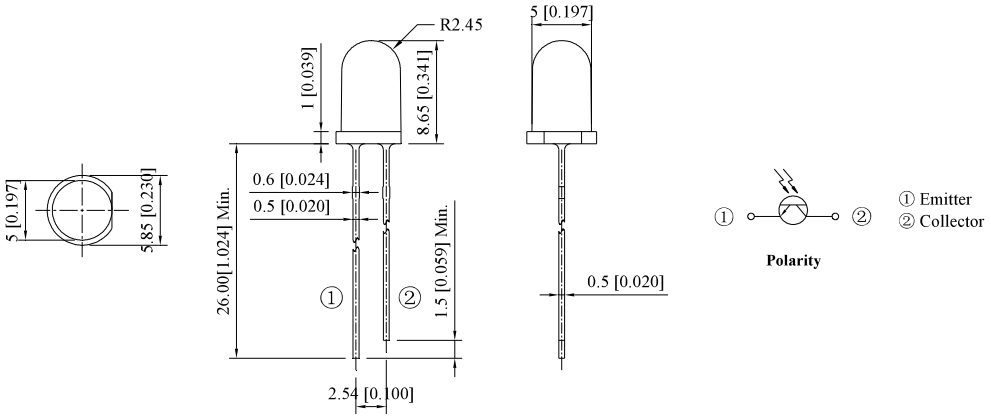


503PTC2E-1A	Silicon	Water Clear	15/15	30	1.00	0.40	1.00	0.70

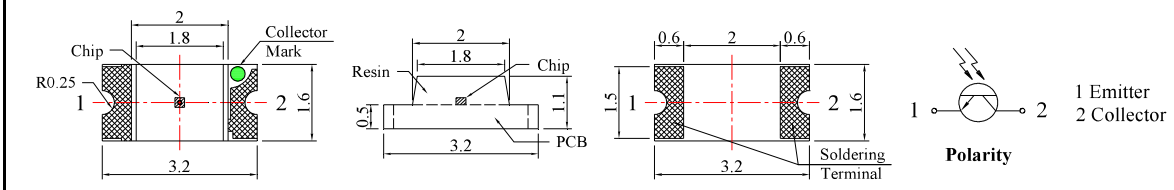
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Lens Color	Rise & Fall Time (μs)	BVCEO Min. (V)	VCE (SAT)		IC (ON)	
					Ee=mW/cm²	Max. (V)	Ee=mW/cm²	Min. (mA)

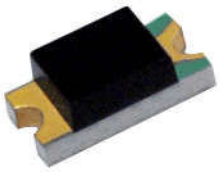
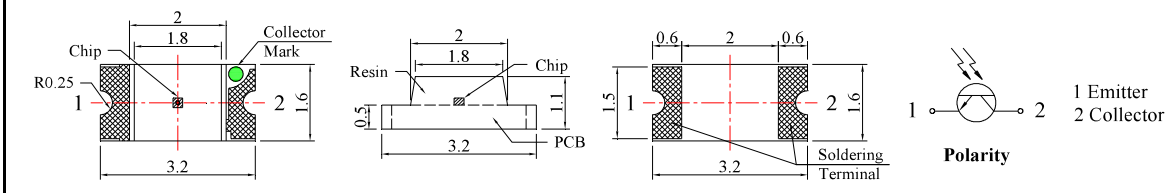
5mm Round Standard Phototransistor, T-1 3/4

								
503PTD2E-1A	Silicon	Black	15/15	30	1.00	0.40	1.00	0.70

3.20mm×1.60mm×1.10mm (1206) Chip Phototransistor

								
S150PTC-1A	Silicon	Water Clear	15/15	30	1.00	0.40	1.00	0.10

3.20mm×1.60mm×1.10mm (1206) Chip Phototransistor

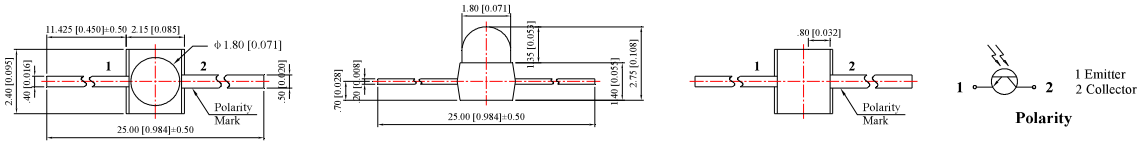
 								
S150PTD-1A	Silicon	Black	15/15	30	1.00	0.40	1.00	0.10

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

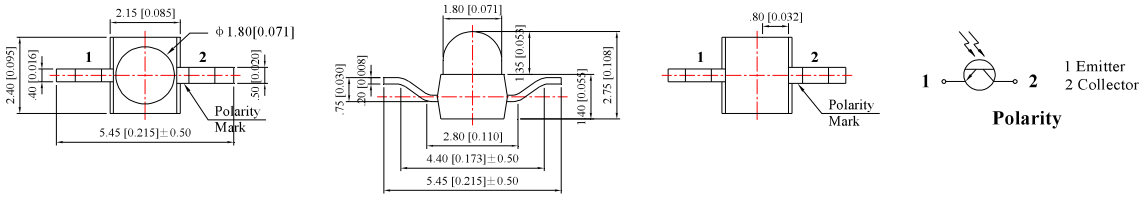
Luckylight

Part Number	Chip Material	Lens Color	Rise & Fall Time (μs)	BVCEO Min. (V)	VCE (SAT)		IC (ON)	
					Ee=mW/cm²	Max. (V)	Ee=mW/cm²	Min. (mA)

2.15mm×2.40mm×2.75mm (Φ1.80mm Round) Subminiature Axial Chip Phototransistor

							
AR180PTD-1A	Silicon	Black	15/15	30	1.00	0.30	1.00	1.00

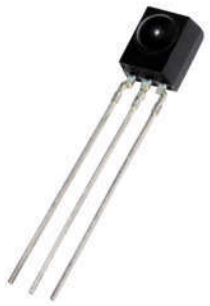
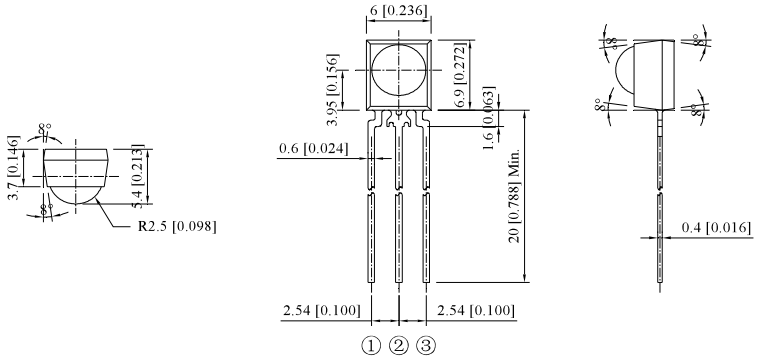
2.15mm×2.40mm×2.75mm (Φ1.80mm Round) Subminiature Axial Chip Phototransistor

							
AR180PTD-1A/TR5	Silicon	Black	15/15	30	1.00	0.30	1.00	1.00

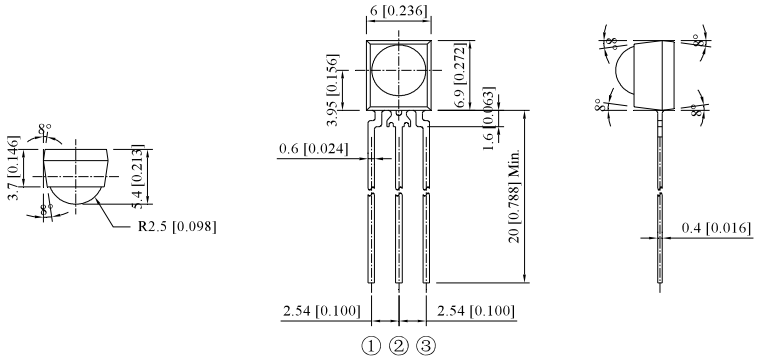
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.10mm (.004") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	B.P.F. Center Frequency (KHz)	Supply Voltage Typ. (V)	Supply Current Typ. (mA)	Transmission Distance Min. (m)	Angle θh (°)

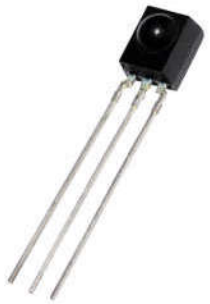
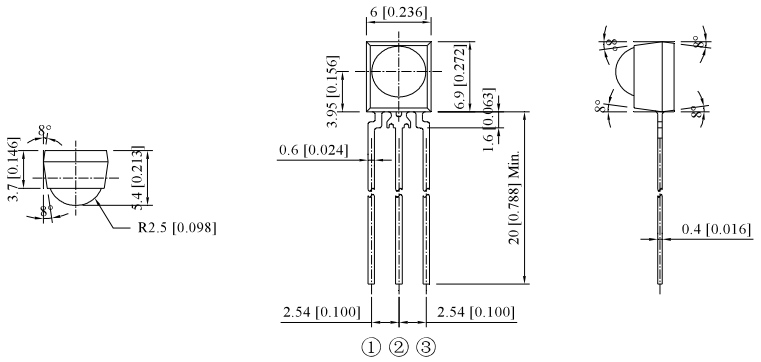
Infrared Remote Control Receiver Module (IRM)

					
M6036	36	5.00	1.30	14	90

Infrared Remote Control Receiver Module (IRM)

					
M3638	38	5.00	1.30	14	90

Infrared Remote Control Receiver Module (IRM)

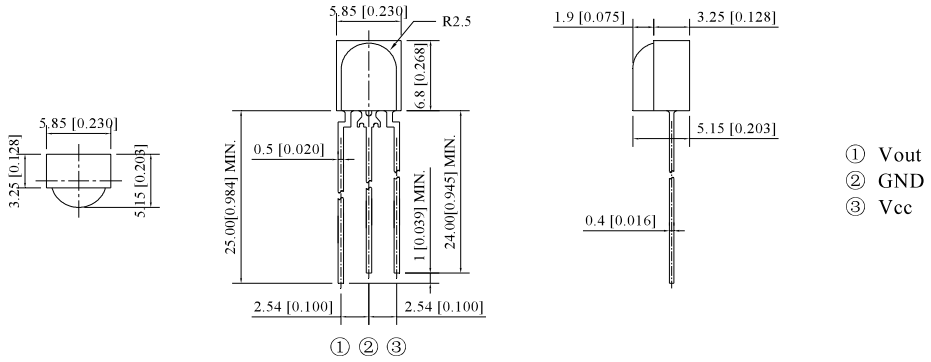
					
M6038	38	5.00	1.30	14	90

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

Luckylight

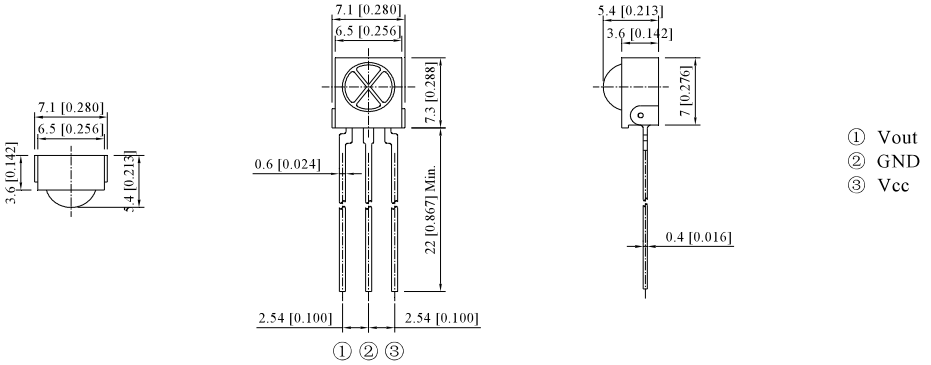
Part Number	B.P.F. Center Frequency (KHz)	Supply Voltage Typ. (V)	Supply Current Typ. (mA)	Transmission Distance Min. (m)	Angle θh (°)

Infrared Remote Control Receiver Module (IRM)



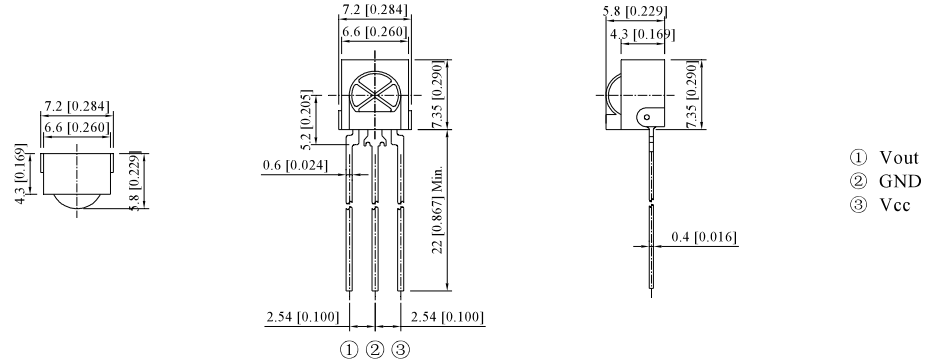
M138S-2	38	5.00	1.30	14	90

Infrared Remote Control Receiver Module (IRM)



M338S	38	5.00	1.30	14	90

Infrared Remote Control Receiver Module (IRM)

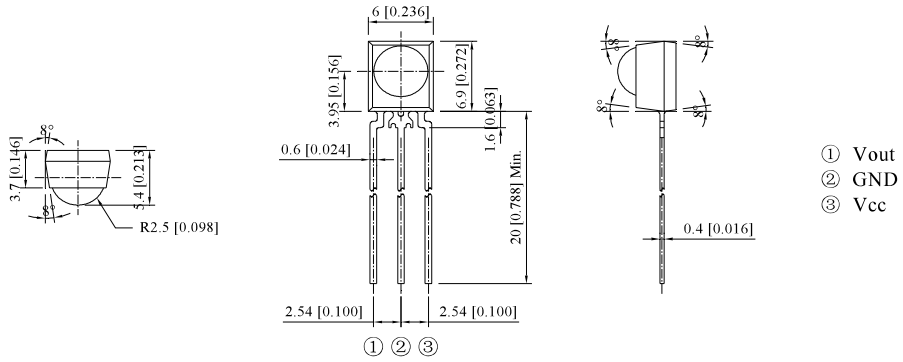


M138S-2-M2	38	5.00	1.30	14	90

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	B.P.F. Center Frequency (KHz)	Supply Voltage Typ. (V)	Supply Current Typ. (mA)	Transmission Distance Min. (m)	Angle θh (°)

Infrared Remote Control Receiver Module (IRM)



M6056	56	5.00	1.30	14	90

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010") unless otherwise noted.
3. Specifications are subject to change without notice.