

Invisible optoelectronics device

Infrared Diode

Photo Diode

Photo Transistor

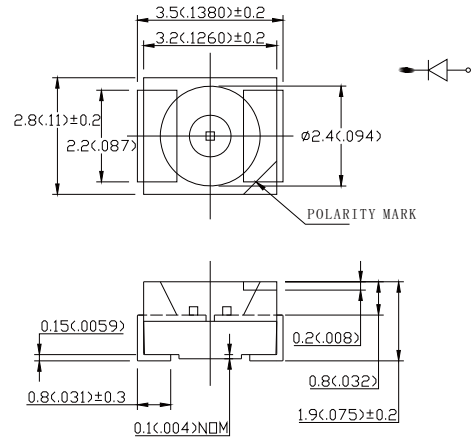
High power Infrared diode

Infrared Emitters

Part Number	Chip		Lens Type	Φe (Mw) Typ.	Viewing Angle 201/2	Drawing
	Material	λ P (nm)				

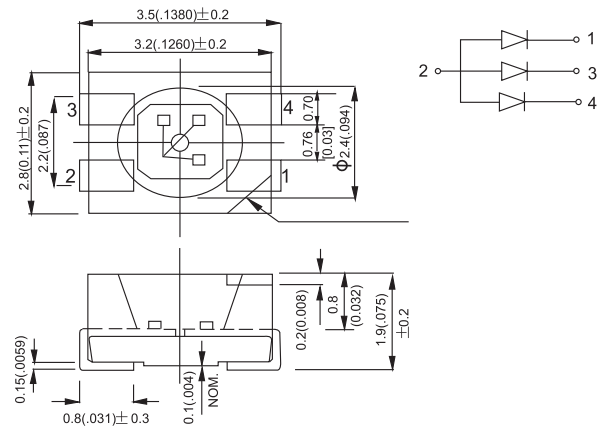
BL-LS3528A0S1IRAC	GaAs	940	Water Clear	30	120
BL-LS3528A0S1IRAB	GaAs	940	Blue Trans.	30	
BL-LS3528A0S1IRBC	GaAlAs	880	Water Clear	30	
BL-LS3528A0S1IRBB	GaAlAs	880	Blue Trans.	30	
BL-LS3528A0S1IRCC	GaAlAs	850	Water Clear	50	
BL-LS3528A0S1IRCB	GaAlAs	850	Blue Trans.	50	
BL-LS3528A0S1IRCY	GaAlAs	850	Yellow Trans.	50	

BL-LS3528A0S1



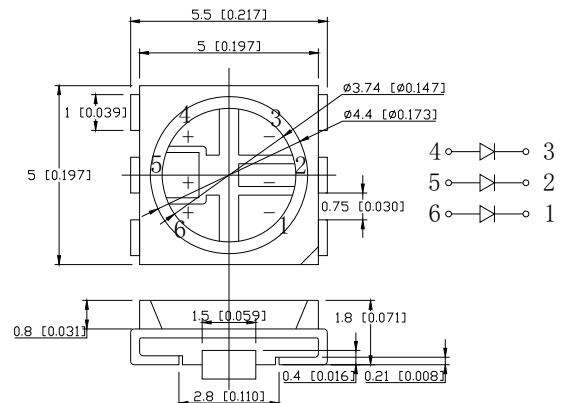
BL-LS3528B1S3IRAC	GaAs	940	Water Clear	90	60
BL-LS3528B1S3IRAB	GaAs	940	Blue Trans.	90	
BL-LS3528B1S3IRBC	GaAlAs	880	Water Clear	90	
BL-LS3528B1S3IRBB	GaAlAs	880	Blue Trans.	90	
BL-LS3528B1S3IRCC	GaAlAs	850	Water Clear	150	
BL-LS3528B1S3IRCB	GaAlAs	850	Blue Trans.	150	
BL-LS3528B1S3IRCY	GaAlAs	850	Yellow Trans.	150	

BL-LS3528B1S3



BL-LS5050A1S3IRAC	GaAs	940	Water Clear	90	60
BL-LS5050A1S3IRAB	GaAs	940	Blue Trans.	90	
BL-LS5050A1S3IRBC	GaAlAs	880	Water Clear	90	
BL-LS5050A1S3IRBB	GaAlAs	880	Blue Trans.	90	
BL-LS5050A1S3IRCC	GaAlAs	850	Water Clear	150	
BL-LS5050A1S3IRCB	GaAlAs	850	Blue Trans.	150	
BL-LS5050A1S3IRCY	GaAlAs	850	Yellow Trans.	150	

BL-LS5050A1S3



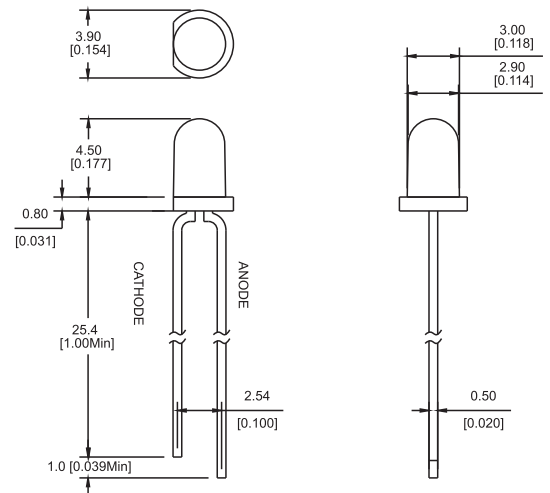
Infrared Emitters

Part Number	Chip		Lens Type	Φ_e	Viewing Angle 201/2	Drawing
	Material	λ_P (nm)		Typ.		

3mm IR LED

BL-L314IRAC	GaAs	940	Water Clear	25	40
BL-L314IRAB	GaAs	940	Blue Trans.	25	
BL-L314IRBC	GaAlAs	880	Water Clear	25	
BL-L314IRBB	GaAlAs	880	Blue Trans.	25	
BL-L314IRCC	GaAlAs	850	Water Clear	45	
BL-L314IRCB	GaAlAs	850	Blue Trans.	45	
BL-L314IRCY	GaAlAs	850	Yellow Trans.	45	

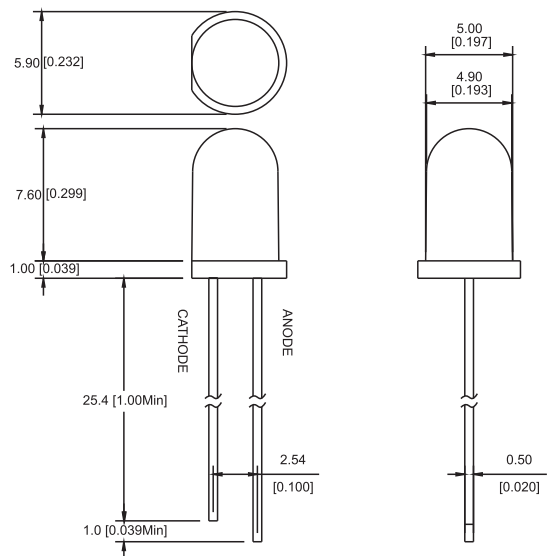
BL-L314IR



5mm IR LED

BL-L513IRAC	GaAs	940	Water Clear	30	30
BL-L513IRAB	GaAs	940	Blue Trans.	30	
BL-L513IRBC	GaAlAs	880	Water Clear	30	
BL-L513IRBB	GaAlAs	880	Blue Trans.	30	
BL-L513IRCC	GaAlAs	850	Water Clear	50	
BL-L513IRCB	GaAlAs	850	Blue Trans.	50	
BL-L513IRCY	GaAlAs	850	Yellow Trans.	50	

BL-L513IR



Power Infrared Emitters

Part Number	Chip		Lens Type	Φ_e (Mw) Typ.	Viewing Angle 201/2	Drawing
	Material	λ_P (nm)				
						BL-HP7EXX Series
BL-HP7EIRAC	GaAs	940	Water Clear	500	120	
BL-HP7EIRAB	GaAs	940	Blue Trans.	500		
BL-HP7EIRCC	GaAlAs	850	Water Clear	950		
BL-HP7EIRCB	GaAlAs	850	Blue Trans.	950		
BL-HP7EIRCY	GaAlAs	850	Yellow Trans.	950		
						BL-HP9EXX Series
BL-HP9EIRAC	GaAs	940	Water Clear	500	120	
BL-HP9EIRAB	GaAs	940	Blue Trans.	500		
BL-HP9EIRCC	GaAlAs	850	Water Clear	950		
BL-HP9EIRCB	GaAlAs	850	Blue Trans.	950		
BL-HP9EIRCY	GaAlAs	850	Yellow Trans.	950		
						BL-HP20E Series
BL-HP20EIRAC	GaAs	940	Water Clear	3100	120	
BL-HP20EIRAB	GaAs	940	Blue Trans.	3100		
BL-HP20EIRCC	GaAlAs	850	Water Clear	3500		
BL-HP20EIRCB	GaAlAs	850	Blue Trans.	3500		
BL-HP20EIRCY	GaAlAs	850	Yellow Trans.	3500		

All dimensions are in millimeters (inches)
Tolerance is $\pm 0.25(0.01^*)$ unless otherwise note



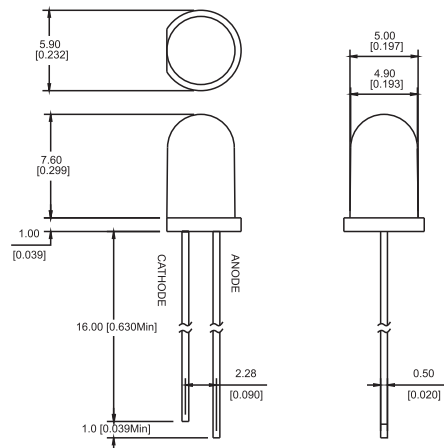
For more, please visit <http://www.betlux.com>

Silicon Photo Diodes

5.1*3.0*7.4mm SILICON PHOTO DIODES

Items	Symbol	Min.	Typ.	Max.	Unit	Condition
Wavelength of Peak	λP	-	940	-	Nm	-
Sensitivity						
Open Circuit Voltage	VOC		0.35	-	V	H=5mW/cm ²
Short Circuit Current	ISC	-	75	-	uA	1P=940nm
Reverse Light Current	IL	-	120	-	uA	H=5mW/cm ²
						1P=940nm
						VR=5V
Reverse Dark Current	ID	-	5	30	NA	H=0mW/cm ²
						VR=10V
Reverse Break down Voltage	VBR	35	170	-	V	H=0mW/cm ²
						IR=100uA
Viewing angle	201/2	-	35	-	Deg	
Rise/Fall Time	Tr/Tf	-	50/50	-	NS	RL=1000□
						VR=10V

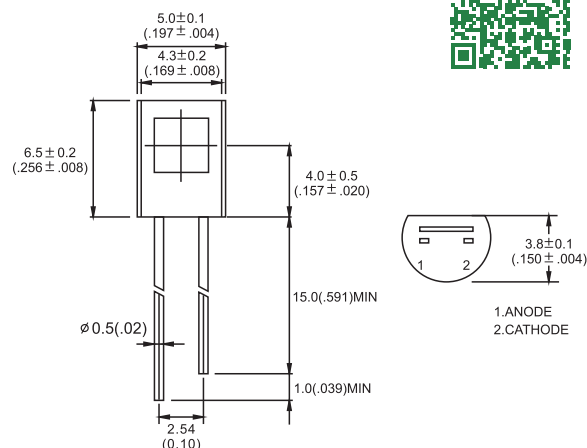
BL-L512PD



5*3.8*6.5mm SILICON PHOTO DIODES

Items	Symbol	Min.	Typ.	Max.	Unit	Condition
Wavelength of Peak	λP	-	940	-	nm	-
Sensitivity						
Open Circuit Voltage	Voc		0.35	-	V	H=5mW/cm ²
Short Circuit Current	Isc	50	75	-	uA	1P=940nm
Reverse Light Current	IL	60	120	-	uA	H=5mW/cm ²
						1P=940nm
						VR=5V
Reverse Dark Current	Id	-	5	30	nA	H=0mW/cm ²
						VR=10V
Reverse Break down Voltage	Vbr	35	170	-	V	H=0mW/cm ²
						IR=100uA
Viewing angle	201/2	-	140	-	Deg	
Rise/Fall Time	Tr/Tf	-	50/50	-	NS	RL=1000□
						VR=10V

BL-L4802PD



5.1*3.0*7.4mm SILICON PHOTO DIODES

Items	Symbol	Min.	Typ.	Max.	Unit	Condition
Wavelength of Peak	λP	-	940	-	nm	-
Sensitivity						
Open Circuit Voltage	Voc		0.35	-	V	H=5mW/cm ²
Short Circuit Current	Isc	-	75	-	uA	1P=940nm
Reverse Light Current	IL	-	120	-	uA	H=5mW/cm ²
						1P=940nm
						VR=5V
Reverse Dark Current	Id	-	5	10	nA	H=0mW/cm ²
						VR=10V
Reverse Break down Voltage	Vbr	35	170	-	V	H=0mW/cm ²
						IR=100uA
Viewing angle	201/2	-	140	-	Deg	
Rise/Fall Time	Tr/Tf	-	50/50	-	NS	RL=1000□
						VR=10V

BL-L3522PD

