

IR Emitters and Detectors

F5G series Gallium-Aluminum-Arsenide IREDs represent leading-edge emitter technology. Their high power output at 880 nanometers provides a significant increase in system efficiency, compared to GaAs IREDs.

The L14 series silicon detectors are available with transistor and Darlington-connected output. These high-sensitivity detectors combine with high-output emitters to increase efficiency in optoelectronic circuits.

Infrared Emitters

Type	Min P _O @ I _F = 100mA	Max V _F @ I _F = 100mA	Peak Emission Wavelength Typ. n Meters	Rise Time Typ. μs	Fall Time Typ. μs	Max P _D mW	Max I _F Cont. mA	Package*
1N6264	6.0mW	1.7V	940	1.0	1.0	1300	100	54A
1N6265	6.0mW	1.7V	940	1.0	1.0	1300	100	54
1N6266	25mW/sr	1.7V	940	1.0	1.0	1300	100	54A
CQX14	5.4mW	1.7V	940	1.0	1.0	1300	100	54A
CQX15	5.4mW	1.7V	940	1.0	1.0	1300	100	54
CQX16	1.5mW	1.7V	940	1.0	1.0	1300	100	54A
CQX17	1.5mW	1.7V	940	1.0	1.0	1300	100	54
F5D1	12mW	1.7V	880	1.5	1.5	1300	100	54A
F5D2	9mW	1.7V	880	1.5	1.5	1300	100	54A
F5D3	10.5mW	1.7V	880	1.5	1.5	1300	100	54A
F5E1	12mW	1.7V	880	1.5	1.5	1300	100	54
F5E2	9mW	1.7V	880	1.5	1.5	1300	100	54
F5E3	10.5mW	1.7V	880	1.5	1.5	1300	100	54
F5F1	0.28mW/sr	1.7V	940	1.0	1.0	100	60	56
F5G1	0.6mW/sr	1.85V	880	1.5	1.5	100	50	56
LED55C	5.4mW	1.7V	940	1.0	1.0	1300	100	54A
LED55B	3.5mW	1.7V	940	1.0	1.0	1300	100	54A
LED56	1.5mW	1.7V	940	1.0	1.0	1300	100	54A
LED55CF	5.4mW	1.7V	940	1.0	1.0	1300	100	54
LED55BF	3.5mW	1.7V	940	1.0	1.0	1300	100	54
LED56F	1.5mW	1.7V	940	1.0	1.0	1300	100	54

Detectors

Type #	Description	Sensitivity (ma/mw/cm ²)		BV _{CEO} (V)	BV _{CBO} (V)	I _D (nA) Max	Switching Typ		Typ V _{CE} (SAT)	Package
		Min	Max				t _r (μs)	t _f (μs)		
BPW36	Photo	.6	-	45	45	100	5	5	0.4	55
BPW37	Transistors	.3	-	45	45	100	5	5	0.4	55
L14C1		.1	-	50	50	100	5	5	0.2	57
L14C2		.05	-	50	50	100	5	5	0.2	57
L14G1		.6	-	45	45	100	5	5	0.4	55
L14G2		.3	-	45	45	100	5	5	0.4	55
L14G3		1.2	-	45	45	100	5	5	0.4	55
L14N1		.6	-	30	40	100	10	14	0.4	57
L14N2		1.2	-	30	40	100	12	16	0.4	57
L14P1		4.0	-	30	40	100	10	14	0.4	55
L14P2		8.0	-	30	40	100	12	16	0.4	55
L14Q1		.2	-	30	-	100	8t _{on}	50t _{off}	0.4	56A
BPW38	Photo	15.0	-	25	25	100	75	50	0.8	55
L14F1	Darlingtons	15.0	-	25	25	100	75	50	0.8	55
L14F2		5.0	-	25	25	100	75	50	0.8	55
L14R1		5.0	-	30	-	100	45t _{on}	250t _{off}	0.9	56A

* See Packaging Section

Functional Diagram Included In This Section