

Panasonic®

Surface Mount LEDs

The chip LEDs have thin, compact features available for surface mount technology. It makes super brightness, has a wide viewing angle and is suitable for compact and multi-function equipment.

Features: • Compact and thin package • Super bright and high reliability • Surface mount technology available • Wide product range **Cleaning:** • Avoid using organic solvents. The surface of the LED may change when organic solvents such as trichloroethylene and acetone come in contact with the surface of the LED.

Fig. 1 — 0402 (1005) Leadless

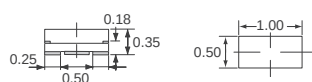


Fig. 2 — 0603 (1608) Leadless-SS Type

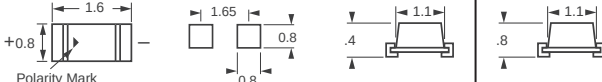


Fig. 3 — 0603 (1608) Leadless-TSS Type

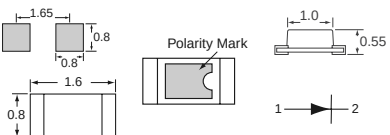


Fig. 4 — J-Lead-S Type

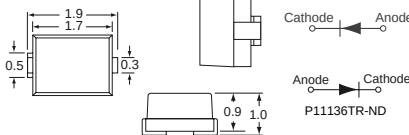


Fig. 5 — Gull Wing-S Type

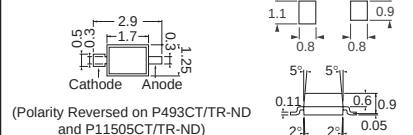


Fig.	Lighting Color	Lens	Process Tech.	Absolute Max. Ratings				Io		Rated (mA) IF	VF(V)			λP Type	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel		Panasonic Part No.			
				(mW) PD	(mA) IF	(V) VR	(°C) T _C	(mcd) Typ.	(mcd.) Min.		V _F Typ.	V _F Max.	1			10	100	Size		Pricing					
0402 (1005) Leadless																									
1	Yellow Green High Bright Red	Y/G Diffused Red Diffused	GaP GaAlAs	40 40	15 15	4 3	-30~85 -30~85	3.7 4.2	2 2.2	10	2.03 1.72	2.6 2.5	565 655	P591CT-ND P592CT-ND		.41 .41	.38 .38	.35 .35	— —	— —	— —	LNJ319G9TR LNJ219R9ARA			
0603 (1608) Leadless Height=0.4mm																									
2A	High Bright Red Orange Soft Orange Amber Yellow Green	Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused	GaAlAs GaAsP GaAsP GaAsP GaP	40 40 40 40 40	15 15 15 15 15	3 3 3 3 4	-30~85 -30~85 -30~85 -30~85 -30~85	6.7 2.2 1 0.5 1.5	8 10 0.5 0.6 5	10	1.72 1.93 1.93 2 2.03	2.5 2.6 2.6 2.6 2.6	655 630 610 590 565	P11461CT-ND P11462CT-ND P11463CT-ND P11464CT-ND P11465CT-ND		.21 .19 .19 .19 .18	.19 .18 .18 .18 .16	.15 .16 .16 .16 .15	P11461TR-ND P11462TR-ND P11463TR-ND P11464TR-ND P11465TR-ND	5,000 5,000 5,000 5,000 5,000	62.24M 57.29M 57.29M 57.29M 52.33M	LNJ214R8ARA LNJ214R8ORD LNJ214K8SRA LNJ214K8YRA LNJ314G8TRA			
	Ultra Bright InGaIP LED																								
	2A	Ultra Bright Red Orange Soft Orange Amber Yellow Green	Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused	InGaAlP InGaAlP InGaAlP InGaAlP InGaAlP	40 40 40 40 40	15 15 15 15 15	4 4 4 4 4	-30~85 -30~85 -30~85 -30~85 -30~85	5 18 10 8.7 6.4	10 10 16 10 10	1.92 2.03 1.95 1.93 2.03	2.5 2.5 2.5 2.5 2.5	645 630 620 590 575	P11466CT-ND P11467CT-ND P11468CT-ND P11469CT-ND P11471CT-ND		.31 .31 .31 .31 .31	.29 .29 .29 .29 .29	.27 .27 .27 .27 .27	P11466TR-ND P11467TR-ND P11468TR-ND P11469TR-ND P11471TR-ND	5,000 5,000 5,000 5,000 5,000	114.57M 114.57M 114.57M 114.57M 114.57M	LNJ214R8ZRA LNJ214R8ZSA LNJ214R8BRA LNJ214K8BRA LNJ314G8BSRA			
		0603 (1608) Leadless Height=0.55mm																							
		3	High Bright Red Orange Soft Orange Amber Yellow Green Yellow Green	Red Diffused Orange Diffused Yellow Diffused Yellow Diffused Green Diffused Green Diffused	GaAlAs GaAsP GaAsP GaAsP GaP GaP	50 50 50 50 50 30	20 20 20 20 20 10	3 3 3 3 4 4	-30~85 -30~85 -30~85 -30~85 -30~85 -30~85	6.7 1 1 1.5 5 3	2.2 0.4 0.5 0.6 1.8 1.8	10	1.72 1.93 1.93 2 2.03	2.5 2.6 2.6 2.6 2.6	655 630 610 590 565	P11133CT-ND P11594CT-ND P11472CT-ND P11135CT-ND P11134CT-ND P11473CT-ND		.18 .18 .18 .18 .18 .16	.17 .16 .16 .17 .17 .15	.16 .15 .16 .16 .16 .13	P11133TR-ND P11594TR-ND P11472TR-ND P11135TR-ND P11134TR-ND P11473TR-ND	5,000 5,000 5,000 5,000 5,000 5,000	57.29M 52.33M 52.33M 52.33M 47.37M 47.37M	LNJ212R8ARA LNJ212R8ORD LNJ212K8SRA LNJ214K8YRA LNJ312G8TRA LNJ312G8LRA	
Ultra Bright InGaAlP / GaN LED																									
3			Red Orange Orange Soft Orange Amber Yellow Green Pure Green Blue White	Red Diffused Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused White Diffused White Diffused White Diffused	InGaAlP InGaAlP InGaAlP InGaAlP InGaAlP InGaAlP GaN GaN GaN	55 55 55 55 55 55 40 40 40	20 20 20 20 20 20 10 10 10	4 4 4 4 4 4 5 5 5	-30~85 -30~85 -30~85 -30~85 -30~85 -30~85 -25~85 -25~85 -30~85	15 32 30 21 26 12 14 8.5	8 10 10 7 14 20 3 3.2	10	1.92 2.03 1.95 1.95 2.1 2.03	2.5 2.5 2.5 2.5 3 3	645 630 620 615 595 575 525 470	P11475CT-ND P11476CT-ND P11477CT-ND P11478CT-ND P11479CT-ND P11480CT-ND P11481CT-ND P11482CT-ND P12023CT-ND		.29 .27 .29 .27 .29 .27 2.29 2.29 2.70	.27 .27 .27 .27 .27 .27 2.15 2.15 2.53	.24 .24 .24 .24 .24 .24 2.01 2.01 2.01	P11475TR-ND P11476TR-ND P11477TR-ND P11478TR-ND P11479TR-ND P11480TR-ND P11481TR-ND P11482TR-ND P12023TR-ND	5,000 5,000 5,000 5,000 5,000 5,000 5,000 5,000 5,000	104.66M 104.66M 104.66M 104.66M 104.66M 104.66M 949.58M 949.58M 996.40M	LNJ212R8ZRA LNJ212R8ZSA LNJ212R8BRA LNJ212K8TRA LNJ214K8YRA LNJ212G8SRA LNJ312W8SRA LNJ312W8SRA LNJ312X8BRA	
	0603 (1608) Leadless Height=0.8mm																								
	2B		High Bright Red Orange Soft Orange Amber Amber Yellow Green Yellow Green Pure Green	Red Diffused Orange Diffused Yellow Diffused Yellow Diffused Yellow Diffused Green Diffused Green Diffused Green Diffused	GaAlAs GaAsP GaAsP GaAsP GaAsP GaP GaP GaP	50 50 50 50 50 50 60 50	20 20 20 20 20 20 10 10	3 3 3 3 3 4 4 4	-30~85 -30~85 -30~85 -30~85 -30~85 -30~85 -30~85 -25~85	6.7 1.1 0.4 1.5 0.9 5 2.1 2.1	2.2 0.4 1.8 0.6 5 1.8 0.7 1.1	10	1.72 1.93 1.8 2.6 2.03	2.5 2.4 1.9 2.6 2.6	660 630 590 565 565	P524CT-ND P523CT-ND* P1132CT-ND P11129CT-ND P522CT-ND* P525CT-ND P521CT-ND* P11484CT-ND		.18 .18 .18 .18 .18 .17 .18 .16	.17 .16 .17 .17 .17 .16 .17 .13	.16 .16 .16 .16 .16 .16 .16 .13	P524TR-ND P523TR-ND* P1132TR-ND P11129TR-ND P522TR-ND* P525TR-ND P521TR-ND* —	4,000 4,000 4,000 4,000 4,000 4,000 4,000 —	62.79M 57.29M 57.29M 57.29M 52.33M 52.33M 52.33M —	LNJ208R8ARA LNJ208R8BRA LNJ208R8SRA LNJ208R8TRA LNJ208K8ZRA LNJ308G8TRA LNJ308G8LRA LNJ308G8ARA	
		Ultra Bright InGaAlP LED																							
		2B	Ultra Bright Red Orange Orange Soft Orange Amber Yellow Green	Red Diffused Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused	InGaAlP InGaAlP InGaAlP InGaAlP InGaAlP InGaAlP	55 55 55 55 55 55	20 20 20 20 20 20	4 4 4 4 4 4	-25~85 -25~85 -25~85 -25~85 -25~85 -25~85	15 32 25 6.5 10.5 12	8 10 6.5 7 4 6.4	10	1.92 2.03 1.9 1.95 2.3 2.03	2.5 2.5 2.3 2.5 2.3 2.5	645 630 620 615 595 575	P11486CT-ND P11487CT-ND P11131CT-ND P11488CT-ND P11130CT-ND P11489CT-ND		.29 .29 .29 .29 .29 .29	.27 .27 .27 .27 .27 .27	.24 .24 .25 .24 .24 .24	P11486TR-ND P11487TR-ND P11131TR-ND P11488TR-ND P11130TR-ND P11489TR-ND	4,000 4,000 4,000 4,000 4,000 4,000	115.12M 115.12M 115.12M 115.12M 115.12M 115.12M	LNJ208R8ZRA LNJ208R8ZSA LNJ208R8BRA LNJ208K8TRA LNJ208K8LRA LNJ308G8SRA	
0805 (2012) J-Lead S-J Type 2mm pitch Taping																									
4			Red High Bright Red Soft Orange Amber Yellow Green Pure Green	Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused Green Diffused	GaP GaAlAs GaAsP GaAsP GaP GaP	60 60 60 60 60 60	20 20 20 20 20 20	4 3 3 3 4 4	-25~85 -25~85 -25~85 -25~85 -25~85 -25~85	0.4 0.3 0.8 1 2.6 0.65	0.15 1.7 0.3 0.4 0.9 0.25	10	2.03 1.72 1.93 2 2.03	2.6 2.5 2.6 2.6 2.6	700 660 610 590 565	P11490CT-ND P11136CT-ND P11491CT-ND P11492CT-ND P11137CT-ND P11493CT-ND		.18 .18 .19 .18 .18 .21	.17 .16 .18 .18 .17 .19	.15 .16 .16 .16 .16 .17	P11490TR-ND P11136TR-ND P11491TR-ND P11492TR-ND P11137TR-ND P11493TR-ND	6,000 6,000 6,000 6,000 6,000 6,000	54.53M 62.24M 57.29M 57.29M 54.53M 62.24M	LNJ206R5RRX LNJ206R5ARA LNJ206R5SRA LNJ206R5TRA LNJ306G5URA LNJ306G5PRX	
	Ultra Bright InGaAlP LED																								
	4		Orange Amber	Red Diffused Yellow Diffused	InGaAlP InGaAlP	50 50	20 20	4 4	-25~85 -25~85	5 8.5	2 3.5	10	1.9 2.3	620 595	P11494CT-ND P11495CT-ND		.31 .31	.29 .29	.27 .27	P11494TR-ND P11495TR-ND	6,000 6,000	114.57M 114.57M	LNJ206R5BRX LNJ406K54RX		
		0805 (2012) J-Lead S-J Type 4mm pitch Taping																							
	4	Red High Bright Red Soft Orange Amber Yellow Green Pure Green	Red Diffused Red Diffused Yellow Diffused Yellow Diffused Green Diffused Green Diffused	GaP GaAlAs GaAsP GaAsP GaP GaP	60 60 60 60 60 60	20 20 20 20 20 20	4 3 3 3 4 4	-25~85 -25~85 -25~85 -25~85 -25~85 -25~85	0.4 0.3 0.8 1 3.5 0.65	0.15 1.7 0.3 0.4 1.35 0.25	10	2.03 1.72 1.93 2 2.03	2.6 2.5 2.6 2.6 2.6	700 660 610 590 565	P11496CT-ND P11487CT-ND P11498CT-ND P11499CT-ND P11500CT-ND P11501CT-ND		.18 .17 .19 .19 .17 .21	.17 .15 .18 .18 .15 .15	.15 .16 .16 .16 .15 .15	P11496TR-ND P11487TR-ND P11498TR-ND P11499TR-ND P11500TR-ND P11501TR-ND	3,000 3,000 3,000 3,000 3,000 3,000	59.49M 68.30M 62.79M 62.79M 59.49M 68.30M	LNJ206R5UX LNJ206R5AUX LNJ206K5SUX LNJ206K5YUX LNJ306G5UUX LNJ306G5PUX		
Ultra Bright InGaAlP / GaN LED																									
4		Orange Amber Blue	Red Diffused Yellow Diffused White Diffused	InGaAlP InGaAlP GaN	50 50 40	20 20 10	4 4 5	-25~85 -25~85 -25~85	5 8.5 5.5	2 3.5 2	10	1.9 2.3 3.2	620 595 470	P11502CT-ND P11503CT-ND P11504CT-ND		.31 .31 2.29	.29 .29 2.25	.27 .27 2.01	P11502TR-ND P11503TR-ND P11504TR-ND	3,000 3,000 3,000	126.14M 126.14M 104.17M	LNJ206R5BUX LNJ406K54UX LNJ906W5BUX			
		0805 (2012) Gull Wing S-GW Type 2mm pitch Taping																							
5		Red Ultra Bright Red Orange	Red Diffused Red Diffused Red Diffused	GaP GaAlAs GaAsP	60 60 30	20 20 10	4 3 3	-25~85 -25~85 -30~85	0.4 5 1	0.15 1.7 0.4	10	2.03 1.72 1.8	2.6 2.5 2.4	700 660 630	P490CT-ND P493CT-ND P518TR-ND		— — .18	.17 .23 .17	.16 .16 .16	P490TR-ND P493TR-ND P518TR-ND	6,000 6,000 6,000	54.53M 62.24M 65.55M	LNJ1271RTR LNJ1271RALTR LNJ1871SRTR		

* Low current LED, same brightness as previous design with half the power, ideal for battery powered equipment.

† Thru-Board type

(Continued)

All prices are in British Pound Sterling and include duties.

1164 (UK051)

uk.digikey.com — FREEPHONE: 0-800-587-0991 • 0-800-904-7786 — FREEFAX: 0-800-587-0992 • 0-800-904-7783

Panasonic[®] Surface Mount LEDs (Cont.)

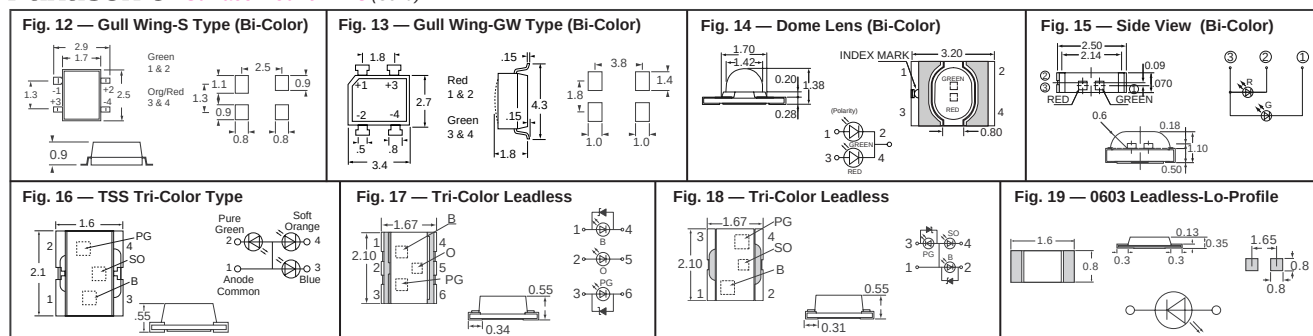


Fig.	Lighting Color	Lens	Process Tech.	Absolute Max. Ratings				I _o		Rated	VF(V)		λ _P	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape & Reel		Panasonic Part No.
				(mW)	(mA)	(V)	(°C)	Typ.	(mcd)	(mcd)	Typ.	Max.	nm		1	10	100		Size	Pricing	
Side Firing LED with Reflective Case																					
8	Red	Clear	GaP	60	20	4	-25-80	0.7	0.25	10	2.03	2.6	700	P11138CT-ND	.22	.21	.19	P11138TR-ND	3,000	89.78/M	LNJ210C6RRA
	High Bright Red	Clear	GaAlAs	60	20	3	-25-80	8	2.6	10	1.72	2.5	660	P11139CT-ND	.22	.21	.19	P11139TR-ND	3,000	100.25/M	LNJ210C6BRA
	Orange	Red Clear	GaAsP	60	20	3	-25-80	2.5	0.8	10	1.93	2.6	630	P519CT-ND	.21	.20	.18	P519TR-ND	3,000	94.74/M	LNJ810L6DRA
	Soft Orange	Red Clear Non Diff.	GaAsP	60	20	3	-25-85	1.8	0.75	10	1.93	2.6	610	P11580CT-ND	.29	.27	.24	P11580TR-ND	3,000	94.74/M	LNJ810L6SRA
	Amber	Yellow Clear	GaAsP	60	20	4	-25-80	2.5	0.8	10	2	2.6	590	P11140CT-ND	.22	.21	.19	P11140TR-ND	3,000	94.74/M	LNJ410Q6YRA
	Yellow Green	Clear	GaP	60	20	4	-25-80	8	3	10	2.03	2.6	565	P520CT-ND	.21	.20	.18	P520TR-ND	3,000	89.78/M	LNJ310M6URA
	Green	Clear Non Diffused	GaP	60	20	4	-25-85	3.2	1.7	10	2.1	2.6	560	P11581CT-ND	.28	.25	.23	P11581TR-ND	3,000	89.78/M	LNJ310C6BRA
	Pure Green	Clear Non Diffused	GaP	60	20	4	-25-85	1.1	0.6	10	2.03	2.6	555	P11582CT-ND	.31	.28	.25	P11582TR-ND	3,000	100.25/M	LNJ310C6PRA
	White	White Diffused	GaN	120	30	5	-25-80	260	180	10	3.4	3.9	—	P12024CT-ND	3.18	2.97	2.69	P12024TR-ND	3,000	1288.88/M	LNJ310X6FRA
Ultra Bright InGaAlP LED																					
8	Ultra Bright Red	Clear Non Diffused	InGaAlP	55	20	4	-25-85	23	12	10	1.92	2.5	645	P11583CT-ND	.40	.38	.34	P11583TR-ND	3,000	161.39/M	LNJ210C62RA
	Orange	Clear Non Diffused	InGaAlP	55	20	4	-25-85	48	25	10	2.03	2.5	630	P11584CT-ND	.40	.38	.34	P11584TR-ND	3,000	161.39/M	LNJ210C63RA
	Orange	Clear Non Diffused	InGaAlP	55	20	4	-25-85	45	24	10	1.95	2.5	620	P11585CT-ND	.40	.38	.34	P11585TR-ND	3,000	161.39/M	LNJ210C68RA
	Soft Orange	Clear Non Diffused	InGaAlP	50	20	4	-25-80	30	12	10	1.95	2.5	615	P11586CT-ND	.40	.38	.34	P11586TR-ND	3,000	161.39/M	LNJ810C67RA
	Amber	Clear Non Diffused	InGaAlP	50	20	4	-25-80	22.5	8.5	10	2	2.5	595	P11587CT-ND	.40	.38	.34	P11587TR-ND	3,000	161.39/M	LNJ410C64RA
	Yellow Green	Clear Non Diffused	InGaAlP	50	20	4	-25-80	15	7.7	10	2	2.5	575	P11588CT-ND	.40	.38	.34	P11588TR-ND	3,000	161.39/M	LNJ310X63RA
Gull Wing GW Type with Reflective Case																					
9	Red	Clear	GaP	60	20	4	-25-80	1.4	0.5	15	2.2	2.8	700	P503CT-ND	.18	.17	.16	P503TR-ND	2,000	70.50/M	LNJ216CTR
	High Bright Red	Clear	GaAlAs	50	20	3	-25-80	12	5	20	1.8	2.6	660	P513CT-ND	.24	.23	.21	P513TR-ND	2,000	81.52/M	LNJ216CALTR
	Orange	Clear	GaAsP	60	20	3	-25-80	5	1.9	20	2.1	2.8	630	P505CT-ND	.18	.17	.16	P505TR-ND	2,000	76.01/M	LNJ816CTR
	Amber	Clear	GaAsP	60	20	4	-25-80	4.5	1.6	20	2.2	2.8	590	P512CT-ND	.19	.17	.16	P512TR-ND	2,000	76.01/M	LNJ416CTR
	Yellow Green	Clear	GaP	60	20	4	-25-80	7.5	2.8	20	2.2	2.8	565	P504CT-ND	.18	.17	.16	P504TR-ND	2,000	70.50/M	LNJ316CTR
	High Bright Yellow Green	Clear	GaP	60	20	4	-25-80	15	8	20	2.2	2.8	565	P514CT-ND	.21	.20	.18	P514TR-ND	2,000	70.50/M	LNJ361C3UR01
Ultra Bright InGaAlP LED																					
9	Amber	Clear	InGaAlP	50	20	4	-25-80	18	6.5	10	2	2.3	595	P11128CT-ND	.32	.30	.27	P11128TR-ND	2,000	152.02/M	LNJ461C34RA
1206 (3216) J- Lead J Type with Reflective Case																					
10	Red	Clear	GaAsP	45	15	4	-25-80	1.2	0.45	10	2.1	2.8	700	P500CT-ND	.18	.17	.16	P500TR-ND	3,000	70.51/M	LNJ251CTR
	High Bright Red	Clear	GaAlAs	45	15	3	-25-80	9	3.3	10	1.75	2.6	660	P11126CT-ND	.24	.23	.21	P11126TR-ND	3,000	81.52/M	LNJ251CALTR
	Orange	Clear	GaAsP	45	15	3	-25-80	3.5	1.3	10	0.05	2.8	630	P502CT-ND	.18	.17	.16	P502TR-ND	3,000	76.01/M	LNJ851CTR
	Amber	Clear	GaAsP	45	15	4	-25-80	2.2	0.8	10	2.1	2.8	590	P511CT-ND	.18	.17	.16	P511TR-ND	3,000	76.01/M	LNJ451CTR
	Yellow Green	Clear	GaP	45	15	4	-25-80	5	1.9	10	2.1	2.8	565	P501CT-ND	.18	.17	.16	P501TR-ND	3,000	70.51/M	LNJ351CTR
Ultra Bright GaN LED																					
10	Blue	Clear	GaN	40	10	5	-25-80	9	3	5	3.2	3.7	470	P11127CT-ND	2.11	1.94	1.76	P11127TR-ND	3,000	1043.77/M	LNJ951C4BRA
	Pure Green	Clear	GaN	40	10	5	-25-80	60	32	5	3.0	3.7	525	P628CT-ND	2.11	1.94	1.76	P628TR-ND	3,000	1043.77/M	LNJ651C4WRA
Leadless TSS- Type Bi-Color																					
11	Yellow Green	White Diffused	GaP	60	20	4	-30-85	5	1.8	10	2.03	2.6	565	P11142CT-ND	.44	.41	.37	P11142TR-ND	5,000	93.64/M	LNJ115W8ARA
	Orange	White Diffused	GaAsP	60	20	3	-30-85	1	0.4	10	1.93	2.6	630	P11143CT-ND	.44	.41	.37	P11143TR-ND	5,000	103.55/M	LNJ115W8PRA
	Yellow Green	White Diffused	GaP	60	20	4	-30-85	5	1.8	10	2.03	2.6	565	P11142CT-ND	.44	.41	.37	P11142TR-ND	5,000	93.64/M	LNJ115W8ARA
	High Bright Red	White Diffused	GaAlAs	50	20	3	-30-85	6.7	2.2	10	1.72	2.5	655	P11143CT-ND	.44	.41	.37	P11143TR-ND	5,000	103.55/M	LNJ115W8PRA
Ultra Bright InGaAlP / GaN LED Combination																					
11	Yellow Green	White Diffused	GaP	60	20	4	-30-85	5	1.8	10	2.03	2.6	565	P11144CT-ND	.61	.57	.52	P11144TR-ND	5,000	246.76/M	LNJ115W88RA
	Amber	White Diffused	InGaAlP	55	20	4	-30-85	21	7	10	2.1	2.6	595	P11591CT-ND	.67	.63	.57	P11591TR-ND	5,000	246.76/M	LNJ115W89RA
	Yellow Green	White Diffused	GaP	60	20	4	-30-85	5	1.8	10	2.03	2.6	565	P11591CT-ND	.67	.63	.57	P11591TR-ND	5,000	246.76/M	LNJ115W89RA
	Soft Orange	White Diffused	InGaAlP	55	20	3	-30-85	21	7	10	1.95	2.5	615	P11590CT-ND	3.10	2.90	2.71	P11590TR-ND	5,000	1283.92/M	LNJ115W86RA
	Pure Green	White Diffused	GaN	40	10	5	-30-85	34	12.9	5	3	3.7	525	P11589CT-ND	3.10	2.90	2.71	P11589TR-ND	5,000	1283.92/M	LNJ115W8HRA
	High Bright Red	White Diffused	GaAlAs	55	20	3	-30-85	6.7	2.8	10	1.72	2.5	655	P11145CT-ND	3.18	2.92	2.66	P11145TR-ND	5,000	1283.92/M	LNJ115W8VRA
	Blue	White Diffused	GaN	40	10	5	-30-85	8.5	4	5	3.2	3.7	470	P11589CT-ND	3.10	2.90	2.71	P11589TR-ND	5,000	1283.92/M	LNJ115W8HRA
	High Bright Red	White Diffused	GaAlAs	55	20	3	-30-85	6.7	2.8	10	1.72	2.5	655	P11145CT-ND	3.18	2.92	2.66	P11145TR-ND	5,000	1283.92/M	LNJ115W8VRA
	Pure Green	White Diffused	GaN	40	10	5	-30-85	34	10.3	5	3	3.7	525	P11145CT-ND	3.18	2.92	2.66	P11145TR-ND	5,000	1283.92/M	LNJ115W8VRA
	Soft Orange	White Diffused	InGaAlP	55	20	4	-30-85	21	7	10	1.95	2.5	615	P11145CT-ND	3.18	2.92	2.66	P11145TR-ND	5,000	1283.92/M	LNJ115W8VRA
S-GW Gull Wing Type Bi-Color																					
12	High Bright Yellow Green	White Diffused	GaP	60	20	4	-25-85	5	3	10	2.03	2.6	565	P526CT-ND	.41	.38	.35	P526TR-ND	3,000	130.54/M	LNJ107W5PRW
	High Bright Red	White Diffused	GaAlAs	60	20	3	-25-85	5	1.7	10	1.72	2.5	660	P515CT-ND	.41	.38	.35	P515TR-ND	3,000	119.53/M	LNJ107W5ARA1
	Yellow Green	White Diffused	GaP	60	20	4	-25-85	2.6	0.9	10	2.03	2.6	565	P515CT-ND	.41	.38	.35	P515TR-ND	3,000	119.53/M	LNJ107W5ARA1
Gull Wing Type Bi-Color with Reflective Case																					
13	Green	Clear	GaP	45	15	4	-25-80	4	1.5	10	2.05	2.8	565	P507CT-ND	.41	.38	.35	P507TR-ND	1,000	141.00	LN216C13TR
	Red	Clear	GaAsP	45	15	3	-25-80	1.8	0.65	10	2	2.8	650	P11147CT-ND	.44	.41	.37	P11147TR-ND	1,000	141.00	LN216C68TR
	Pure Green	Clear	GaAsP	45	15	3	-25-65	2.5	1.2	10	2.05	2.8	555	P11147CT-ND	.44	.41	.37	P11147TR-ND	1,000	141.00	LN216C68TR
	Orange	Clear	GaAsP																		