Function Round LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
3mm Round	302HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1	1
	302HT	GaP	Red	700	Red Transparent	2.1	2.8	10	1	3	
	302VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	
	302VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	200	300	
	302VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	50	250	
	302GD	GaP	Green	565	Color Diff.	2.1	2.8	10	5	12.5	
	302GC	GaP	Green	565	Water Clear	2.1	2.8	10	20	70	
	302GT	GaP	Green	565	Green Transparent	2.1	2.8	10	5	30	
	302YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	5	12.5	
	302YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	10	50	
	302YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	5	20	
3mm Round	304HD	GaP	Red	700	Color Diff.	2.1	2.8	10	1.3	3.2	2
	304HT	GaP	Red	700	Red Transparent	2.1	2.8	10	2.5	10	
	304VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	120	
	304VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	200	350	
	304VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	50	280	
	304GD	GaP	Green	565	Color Diff.	2.1	2.8	10	5	20	
	304GC	GaP	Green	565	Water Clear	2.1	2.8	10	20	80	
	304GT	GaP	Green	565	Green Transparent	2.1	2.8	10	5	30	
	304YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	5	20	
	304YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	10	70	
	304YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	5	30	

Fig.1

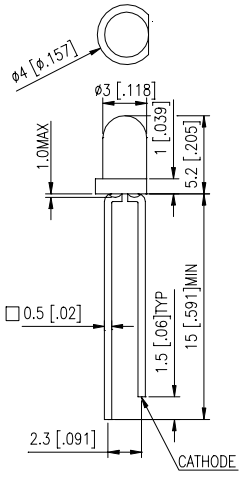
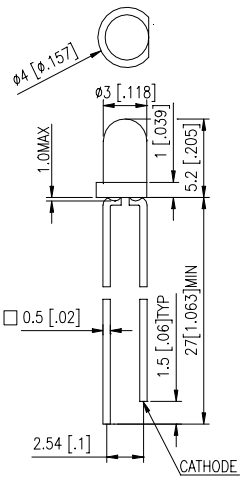


Fig.2



Function Round LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
5mm Round	502HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1.1	3
	502HT	GaP	Red	700	Red Transparent	2.1	2.8	10	1	3.2	
	502VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	
	502VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	200	350	
	502VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	50	250	
	502GD	GaP	Green	565	Color Diff.	2.1	2.8	10	5	12.5	
	502GC	GaP	Green	565	Water Clear	2.1	2.8	10	20	80	
	502GT	GaP	Green	565	Green Transparent	2.1	2.8	10	5	30	
	502YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	5	12.5	
	502YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	10	60	
	502YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	5	20	
5mm Round	503HD	GaP	Red	700	Color Diff.	2.1	2.8	10	1.3	3.2	4
	503HT	GaP	Red	700	Red Transparent	2.1	2.8	10	2.5	10	
	503VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	120	
	503VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	200	380	
	503VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	50	290	
	503GD	GaP	Green	565	Color Diff.	2.1	2.8	10	5	20	
	503GC	GaP	Green	565	Water Clear	2.1	2.8	10	20	90	
	503GT	GaP	Green	565	Green Transparent	2.1	2.8	10	5	30	
	503YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	5	20	
	503YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	10	80	
	503YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	5	35	

Fig.3

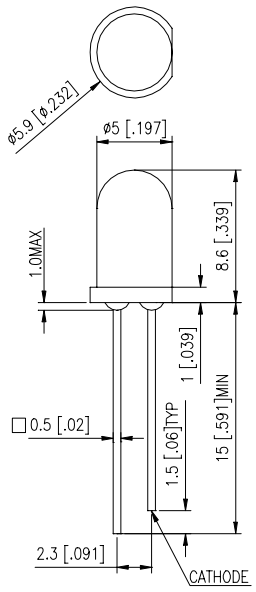
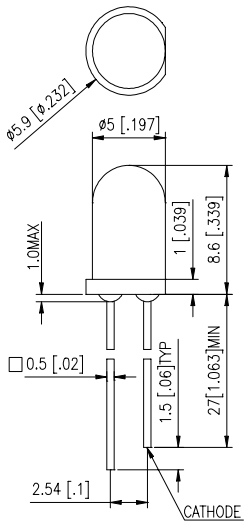


Fig.4



Function Round LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
8mm Round	803VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	5
	803VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	250	
	803GD	GaP	Green	565	Color Diff.	2.1	2.8	20	20	70	
	803GC	GaP	Green	565	Water Clear	2.1	2.8	20	50	175	
	803YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	20	20	70	
	803YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	20	50	175	
10mm Round	1003VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	6
	1003VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	250	
	1003GD	GaP	Green	565	Color Diff.	2.1	2.8	20	20	70	
	1003GC	GaP	Green	565	Water Clear	2.1	2.8	20	50	250	
	1003YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	20	20	70	
	1003YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	20	50	250	

Fig.5

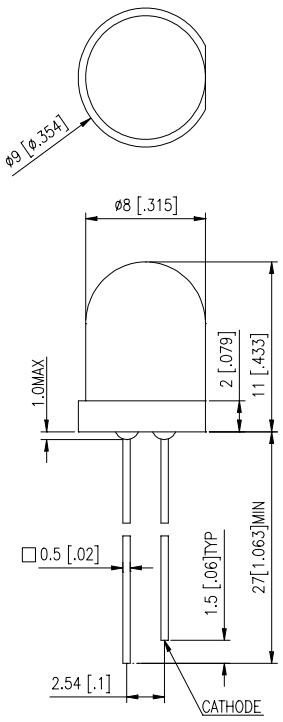
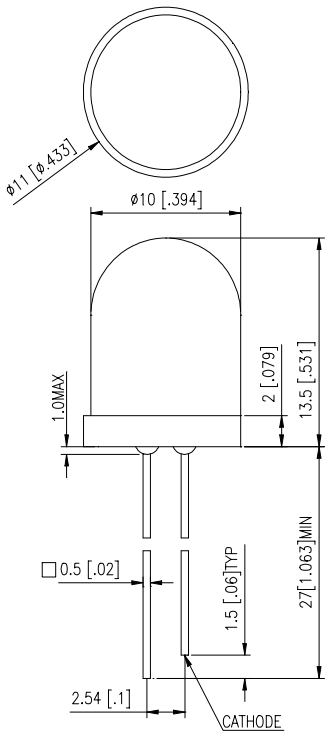


Fig.6



Function Round LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
1.8mm Round	1814HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	2	7
	1814VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	12.5	32	
	1814VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	32	120	
	1814GD	GaP	Green	565	Color Diff.	2.1	2.8	10	2	5	
	1814GC	GaP	Green	565	Water Clear	2.1	2.8	10	5	12.5	
	1814YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	2	5	
	1814YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	5	12.5	
2mm Flat Top	214HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1.25	8
	214VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	12.5	
	214GD	GaP	Green	565	Color Diff.	2.1	2.8	10	3.2	8	
	214YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	3.2	8	

Fig.7

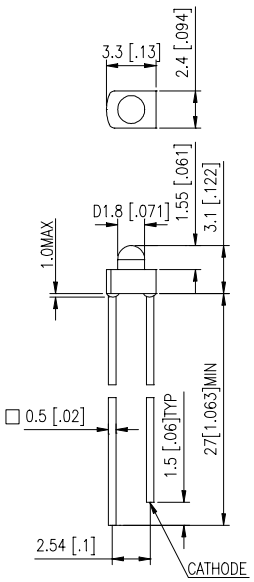
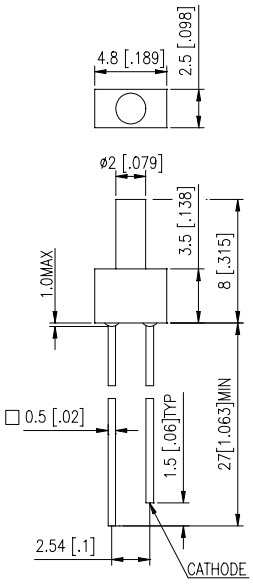


Fig.8



Function Rectangular LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
2x3mm Rectangular	232HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1	9
	232VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	20	
	232VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	20	250	
	232GD	GaP	Green	565	Color Diff.	2.1	2.8	10	0.7	3.5	
	232GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	70	
	232YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	0.5	2.5	
	232YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	70	
1.9x3.9mm Rectangular	242HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1	10
	242VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	20	
	242VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	20	270	
	242GD	GaP	Green	565	Color Diff.	2.1	2.8	10	0.7	3.5	
	242GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	75	
	242YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	0.5	2.5	
	242YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	5	

Fig.9

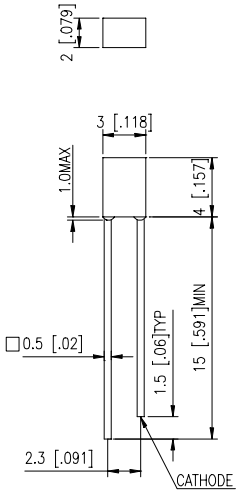
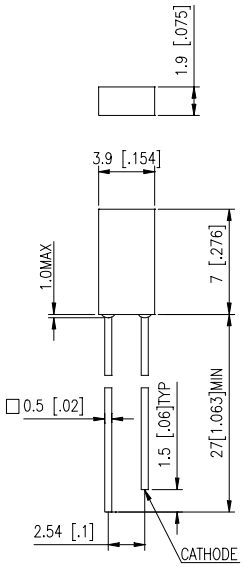


Fig.10



Function Rectangular LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
2x5mm Rectangular	252HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1.6	11
	252VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	23	
	252VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	20	250	
	252GD	GaP	Green	565	Color Diff.	2.1	2.8	10	1.6	6	
	252GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	70	
	252YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	1.6	6	
	252YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	70	
2x5mm Rectangular	262HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1.6	12
	262VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	23	
	262VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	20	250	
	262GD	GaP	Green	565	Color Diff.	2.1	2.8	10	1.6	6	
	262GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	70	
	262YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	1.6	6	
	262YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	70	
5x5mm Rectangular	552HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	1.6	13
	552VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	8	23	
	552VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	20	250	
	552GD	GaP	Green	565	Color Diff.	2.1	2.8	10	1.6	6	
	552GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	70	
	552YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	1.6	6	
	552YC	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	70	

Fig.11

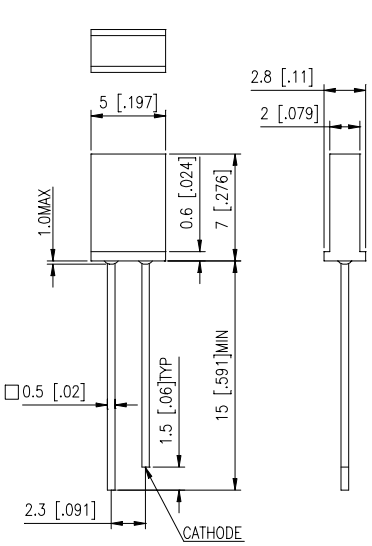


Fig.12

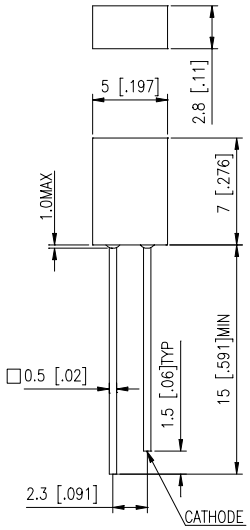
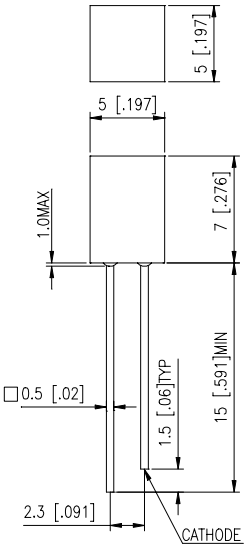


Fig.13



Function Blinking LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
5mm Round	503HDBL	GaP	Red	700	Color Diff.	2.1	2.8	10	1.3	3.2	14
	503VDBL	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	120	
	503VCLBL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	200	380	
	503GDBL	GaP	Green	565	Color Diff.	2.1	2.8	10	5	20	
	503GCBL	GaP	Green	565	Water Clear	2.1	2.8	10	20	90	
	503YDBL	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	5	20	
	503YCBL	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	10	80	
8mm Round	803VDBL	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	15
	803VCLBL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	250	
	803GDBL	GaP	Green	565	Color Diff.	2.1	2.8	20	20	70	
	803GCBL	GaP	Green	565	Water Clear	2.1	2.8	20	50	175	
	803YDBL	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	20	20	70	
	803YCBL	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	20	50	175	
10mm Round	1003VDBL	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	20	100	16
	1003VCLBL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	250	
	1003GDBL	GaP	Green	565	Color Diff.	2.1	2.8	20	20	70	
	1003GCBL	GaP	Green	565	Water Clear	2.1	2.8	20	50	250	
	1003YDBL	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	20	20	70	
	1003YCBL	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	20	50	250	

Fig.14

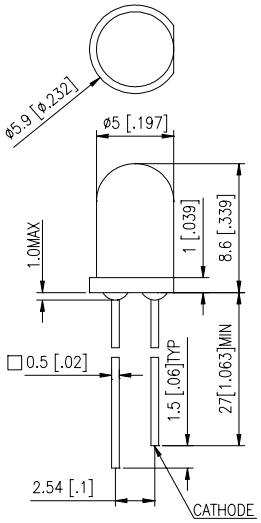


Fig.15

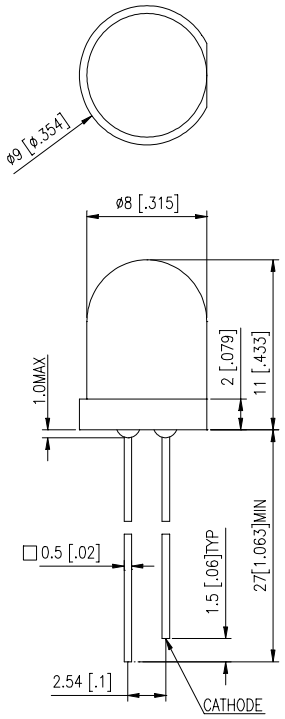
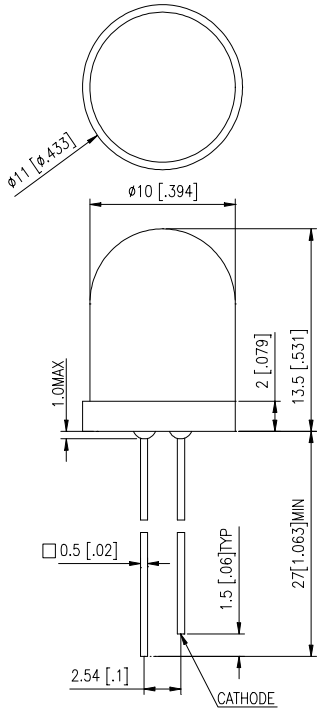


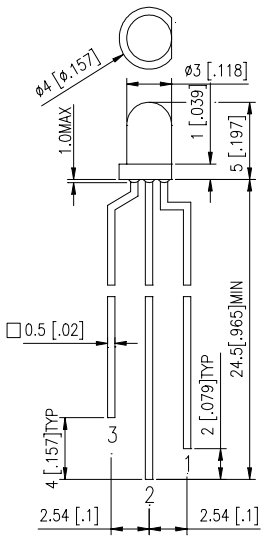
Fig.16



Function Bi-Color & Bi-Polar LEDs

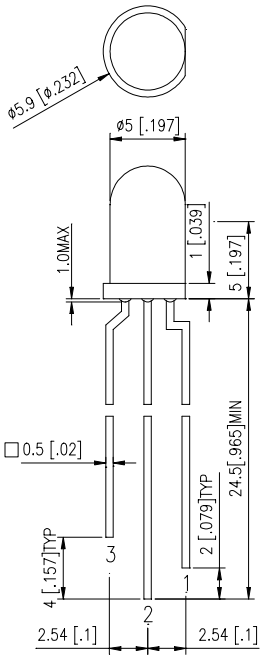
Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
3mm Round	3RG9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	10	20	50	17
		GaP	Green	565		2.1	2.8	10	20	50	
	3RY9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	10	20	50	
		GaAsP/GaP	Yellow	590		2.1	2.8	10	20	50	
	3GY9HW	GaP	Green	565	White Diff.	2.1	2.8	10	20	50	
		GaAsP/GaP	Yellow	590		2.1	2.8	10	20	50	
5mm Round	5RG9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	10	20	90	18
		GaP	Green	565		2.1	2.8	10	20	70	
	5RY9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	10	20	90	
		GaAsP/GaP	Yellow	590		2.1	2.8	10	20	60	
	5GY9HW	GaP	Green	565	White Diff.	2.1	2.8	10	20	70	
		GaAsP/GaP	Yellow	590		2.1	2.8	10	20	60	

Fig.17



3RG9HW 5RG9HW	1.Anode Red 2.Common Cathode 3.Anode Green
3GY9HW 5GY9HW	1.Anode Green 2.Common Cathode 3.Anode Yellow
3RY9HW 5RY9HW	1.Anode Red 2.Common Cathode 3.Anode Yellow

Fig.18



Function Bi-Color & Bi-Polar LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
8mm Round	8RG9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	20	30	90	19
		GaP	Green	565		2.1	2.8	20	20	60	
	8RG9HC	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	175	
		GaP	Green	565		2.1	2.8	20	50	100	
10mm Round	10RG9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	20	30	90	20
		GaP	Green	565		2.1	2.8	20	20	60	
	10RG9HC	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	50	175	
		GaP	Green	565		2.1	2.8	20	50	100	
2x5mm Rectangular	2RG9HW	GaAsP/GaP	Red	660	White Diff.	2.1	2.8	10	8	20	21
		GaP	Green	565		2.1	2.8	10	8	20	

Fig.19

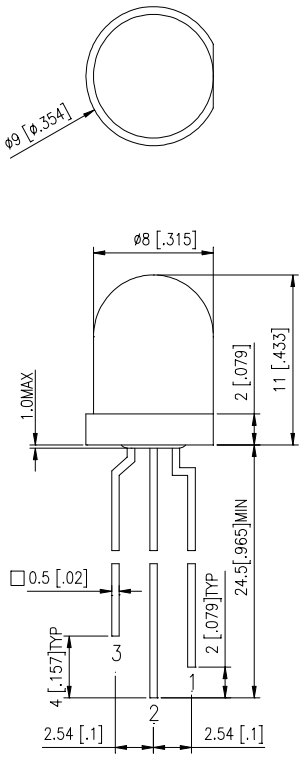


Fig.20

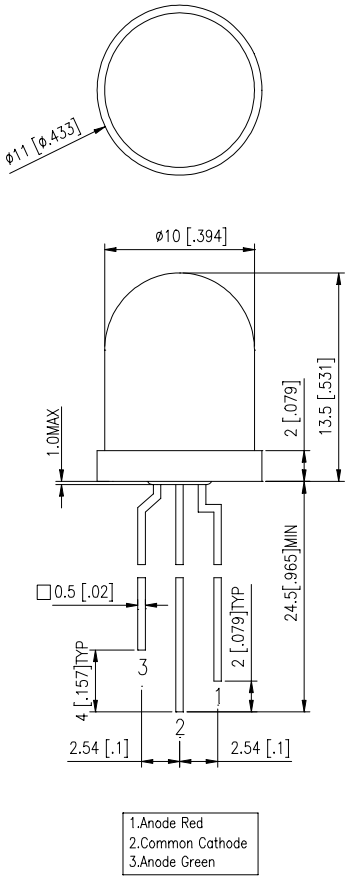
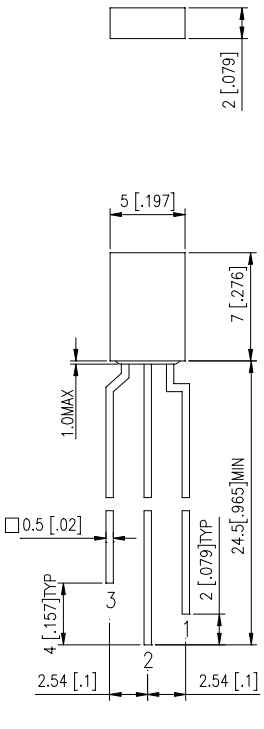


Fig.21



Function Cylindrical LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
3mm Cylindrical	314HD	GaP	Red	700	Color Diff.	2.1	2.8	10	0.5	3.2	22
	314VD	GaAsP/GaP	Red	660	Color Diff.	2.1	2.8	20	10	50	
	314GD	GaP	Green	565	Color Diff.	2.1	2.8	10	1.3	8	
	314YD	GaAsP/GaP	Yellow	590	Color Diff.	2	2.8	10	1.3	8	
3mm Cylindrical	324VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	3.2	12.5	23
	324VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	3.2	12.5	
	324GT	GaP	Green	565	Green Transparent	2.1	2.8	10	2	8	
	324GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	8	
	324YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	2	8	
	314YD	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	8	
5mm Cylindrical	524VT	GaAsP/GaP	Red	660	Red Transparent	2.1	2.8	20	3.2	12.5	24
	524VCL	GaAsP/GaP	Red	660	Water Clear	2.1	2.8	20	3.2	12.5	
	524GT	GaP	Green	565	Green Transparent	2.1	2.8	10	2	8	
	524GC	GaP	Green	565	Water Clear	2.1	2.8	10	2	8	
	524YT	GaAsP/GaP	Yellow	590	Yellow Transparent	2	2.8	10	2	8	
	524YD	GaAsP/GaP	Yellow	590	Water Clear	2	2.8	10	2	8	

Fig.22

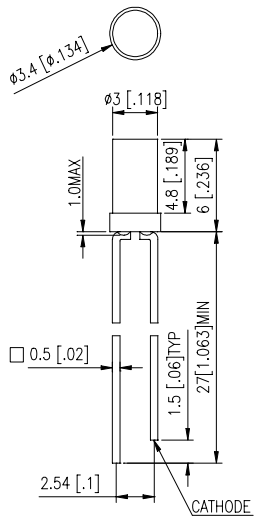


Fig.23

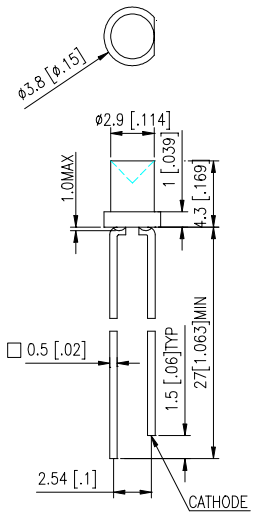
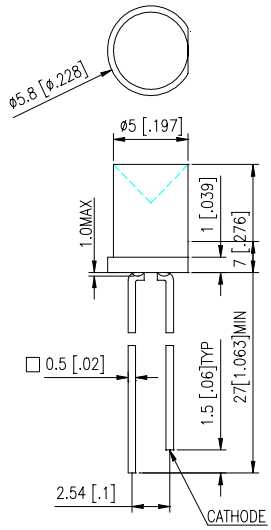


Fig.24



Super Bright LEDs

Type	Part No.	Chip			Lens Color	Vf(V)		Iv(mcd)			Figure No.
		Material	Emitting Color	λ p(nm)		Typ.	Max.	at If=mA	Min.	Max.	
3mm Round	304VCH	AlGaInP/AlGaAs	Red	660	Water Clear	2	2.3	20	1800	3000	25
	304GCH	InGaN	Green	530	Water Clear	3.8	4.5	20	500	800	
	304WC	InGaN	White	X:0.32 Y:0.31	Water Clear	3.8	4.5	20	300	500	
	304BC	InGaN	Blue	430	Water Clear	3.8	4.5	20	150	230	
5mm Round	503VCH	AlGaInP/AlGaAs	Red	660	Water Clear	2	2.3	20	1800	3000	26
	503VGC	InGaN	Green	530	Water Clear	3.8	4.5	20	600	1200	
	503WC	InGaN	White	X:0.32 Y:0.31	Water Clear	3.8	4.5	20	500	700	
	503BC	InGaN	Blue	430	Water Clear	3.8	4.5	20	300	500	

Fig.25

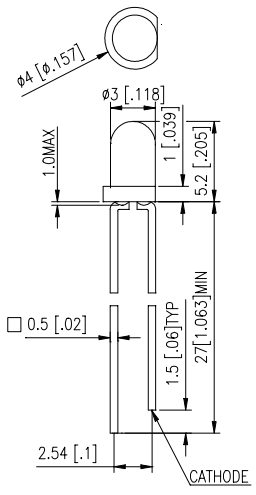
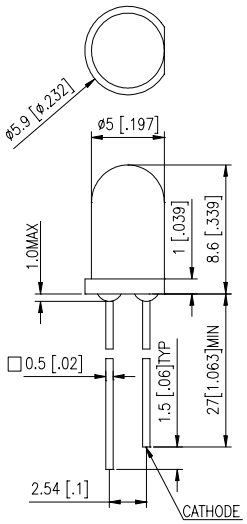


Fig.26



Ultra Bright LEDs HLEC-503VCH-

●Chip Material: AlGaInP

●Ultra Bright LED Lamp: Red

●Construction: Gas Phase Epitaxial

●Application: Traffic Signal, Automotive Exterior Lighting

● Package Dimensions

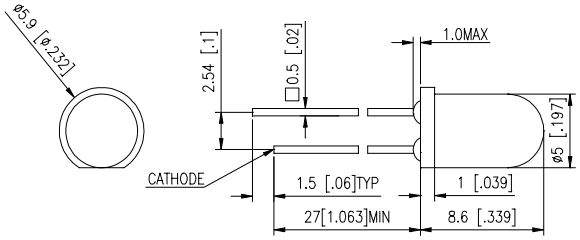


Fig.27

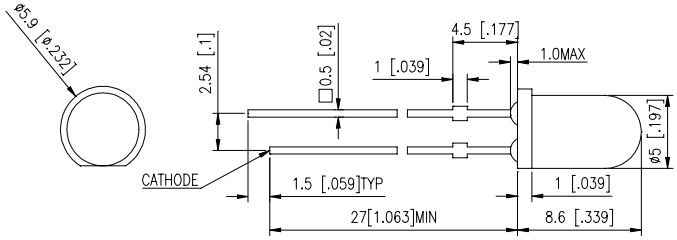


Fig.28 *1

●Absolute maximum Ranges (Ta=25±3℃)

Power Dissipation	P_D	120mW	
DC Forward Current	I_F	30mA	
Pulsed Forward Current	I_{FP}	100mA	*2
Reverse Voltage	V_R	5V	
Operating Temperature	Topr	-25~+80℃	
Storage Temperature	Tstg	-30~+100℃	

● Electrical and Optical Characteristics (Ta=25±3℃)

Type	Part No.	Chip			Lens Color	Vf(V)		Luminous Intensity Iv *3				2θ
		Material	Emitting Color	Wavelength λp(nm)*4		Typ.	Max.	at If=mA	Min. (mcd)	Typ. (mcd)	Max. (mcd)	(Deg.)
5mm Round	503VCH-A-1	AlGaInP	Red	630	Water Clear	2.1	2.5	20	1450	1600	1930	15
	503VCH-A-2	AlGaInP	Red	630	Water Clear	2.1	2.5	20	1450	1600	1930	23
	503VCH-A-3	AlGaInP	Red	630	Water Clear	2.1	2.5	20	1450	1600	1930	30
	503VCH-B-1	AlGaInP	Red	630	Water Clear	2.1	2.5	20	2200	2900	3300	15
	503VCH-B-2	AlGaInP	Red	630	Water Clear	2.1	2.5	20	2200	2900	3300	23
	503VCH-B-3	AlGaInP	Red	630	Water Clear	2.1	2.5	20	2200	2900	3300	30

(*1) Fig.28 shows the outline of LED with stopper. This series is named as 503VCH-X-XX-S.

(*2) Duty 1/10 Pulse Width 10ms.

(*3) Guaranteed value what is include tolerance of measurement of Luminous Intensity by Toyoda Gosei's method is ±20%.

(*4) Guaranteed Value what is include tolerance of measurement of Dominant wavelength by Toyoda Gosei's method is ±2nm.

Ultra Bright LEDs HLEC-503GCH-

●Chip Material: AlGaInP

●Ultra Bright LED Lamp: Bluish-green

●Construction: Gas Phase Epitaxial

●Application: Traffic Signal, Automotive Exterior Lighting

● Package Dimensions

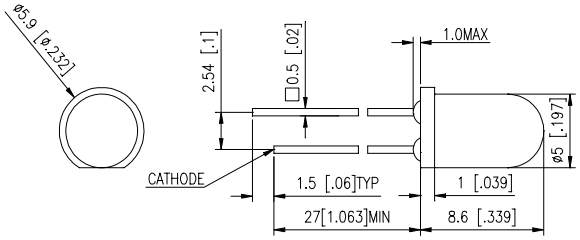


Fig.29

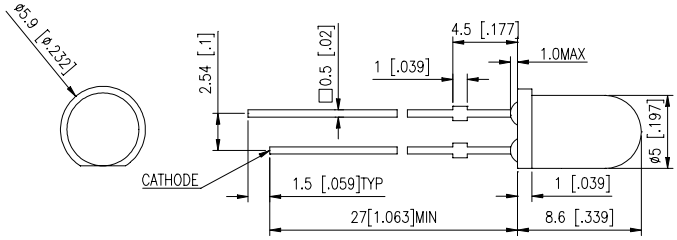


Fig.30 *1

●Absolute maximum Ranges (Ta=25±3℃)

Power Dissipation	P_D	120mW	
DC Forward Current	I_F	30mA	
Pulsed Forward Current	I_{FP}	100mA	*2
Reverse Voltage	V_R	5V	
Operating Temperature	Topr	-30~+80℃	
Storage Temperature	Tstg	-40~+100℃	

● Electrical and Optical Characteristics (Ta=25±3℃)

Type	Part No.	Chip			Lens Color	Vf(V)		Luminous Intensity Iv *3				2θ
		Material	Emitting Color	Wavelength λp(nm)*4		Typ.	Max.	at If=mA	Min. (mcd)	Typ. (mcd)	Max. (mcd)	(Deg.)
5mm Round	503GCH-A-1	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	3300	4500	4900	15
	503GCH-A-2	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	3300	4500	4900	23
	503GCH-A-3	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	3300	4500	4900	30
	503GCH-B-1	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	4900	6000	7300	15
	503GCH-B-2	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	4900	6000	7300	23
	503GCH-B-3	AlGaInP	Bluish green	505	Water Clear	3.5	4.5	20	4900	6000	7300	30

(*1) Fig.30 shows the outline of LED with stopper. This series is named as 503GCH-X-XX-S.

(*2) Duty 1/10 Pulse Width 10ms.

(*3) Guaranteed value what is include tolerance of measurement of Luminous Intensity by Toyoda Gosei's method is ±20%.

(*4) Guaranteed Value what is include tolerance of measurement of Dominant wavelength by Toyoda Gosei's method is ±2nm.

Ultra Bright LEDs

HLEC-503YCH-

●Chip Material: AlGaInP

●Ultra Bright LED Lamp: Yellow

●Construction: Gas Phase Epitaxial

●Application: Traffic Signal, Automotive Exterior Lighting

● Package Dimensions

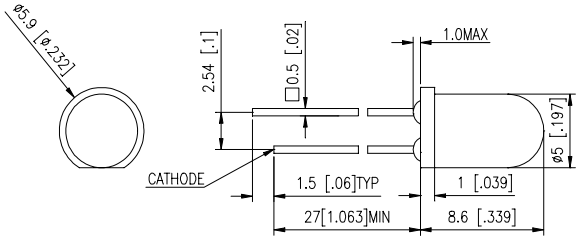


Fig.31

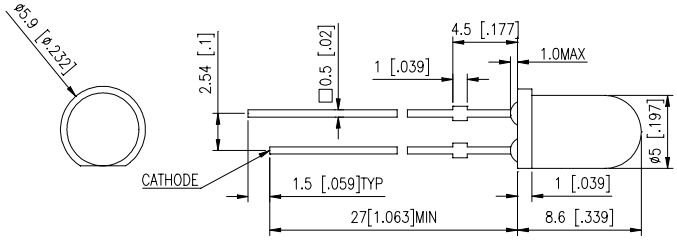


Fig.32 *1

●Absolute maximum Ranges (Ta=25±3℃)

Power Dissipation	P_D	120mW	
DC Forward Current	I_F	30mA	
Pulsed Forward Current	I_{FP}	100mA	*2
Reverse Voltage	V_R	5V	
Operating Temperature	Topr	-25~+80℃	
Storage Temperature	Tstg	-30~+100℃	

● Electrical and Optical Characteristics (Ta=25±3℃)

Type	Part No.	Chip			Lens Color	Vf(V)		Luminous Intensity Iv *3				2θ
		Material	Emitting Color	Wavelength λp(nm)*4		Typ.	Max.	at If=mA	Min. (mcd)	Typ. (mcd)	Max. (mcd)	(Deg.)
5mm Round	503YCH-A-1	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	1450	2000	2200	15
	503YCH-A-2	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	1450	2000	2200	23
	503YCH-A-3	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	1450	2000	2200	30
	503YCH-B-1	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	2200	2900	3300	15
	503YCH-B-2	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	2200	2900	3300	23
	503YCH-B-3	AlGaInP	Yellow	592	Water Clear	2.1	2.5	20	2200	2900	3300	30

(*1) Fig.32 shows the outline of LED with stopper. This series is named as 503YCH-X-XX-S.

(*2) Duty 1/10 Pulse Width 10ms.

(*3) Guaranteed value what is include tolerance of measurement of Luminous Intensity by Toyoda Gosei's method is ±20%.

(*4) Guaranteed Value what is include tolerance of measurement of Dominant wavelength by Toyoda Gosei's method is ±2nm.