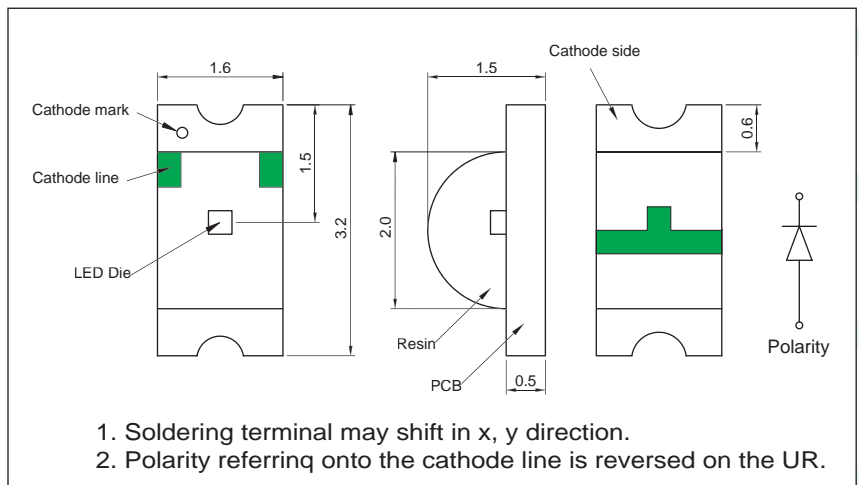


Characters

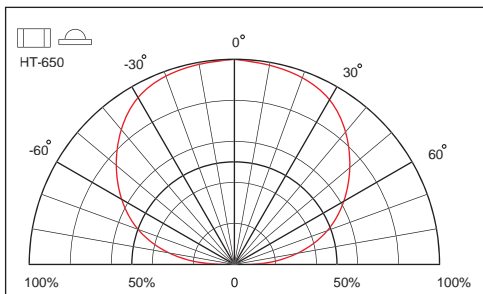
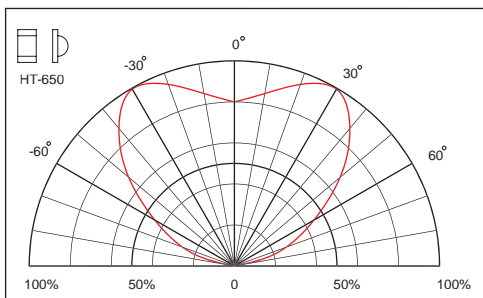
- Chip LED (3.2x1.6x1.5)
- Super compact type

Package Outline Dimensions

(Unit:mm Tolerance:+/-0.1)

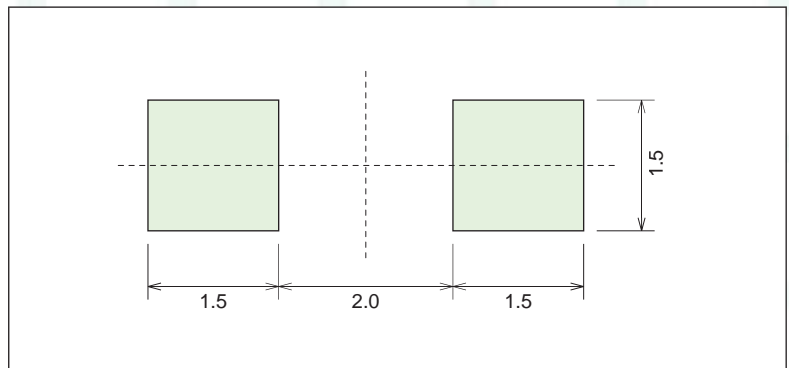


Directive Characteristics



Recommended Soldering Pattern

Unit: mm



Absolute Maximum Ratings

(Ta=25 °C)

Item	Symbol	Value						Unit
		GaP	GaAsP	AlGaAs	AlInGaP	GaN	InGaN	
Power Dissipation	P _D	65	65	66	72	68	80	mW
DC Forward Current	I _F	25	25	30	30	15	20	mA
Pulsed Forward Current	I _{FP} *	100	100	100	100	35	80	mA
Reverse Voltage (I _R =100uA)	V _R	5						V
Operating Temperature	T _{OP}	-30 to 80						°C
Storage Temperature	T _{ST}	-40 to 85						°C

*Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width



Electrical-Optical Characteristics

(Ta=25 °C)

Code for parts	Lighting Color	Material	Forward Voltage (V)		Wavelength (nm) typ			Luminous Intensity (mcd)*		I _F (mA)
			typ	max	λ _D	λ _P	Δλ	min	typ	
HT-650YG	Yellow Green	GaP	2.2	2.6	573	568	30	6.3	16	20
HT-650Y	Yellow	GaAsP	2.1	2.6	590	589	35	2.5	9	20
HT-650D	Amber	GaAsP	2.1	2.6	608	610	35	2.5	9	20
HT-650SD	Super Bright Orange	GaAsP	2.1	2.6	629	642	35	4	11	20
HT-650UR	Super Bright Red	AlGaAs	1.8	2.2	643	660	20	6.3	16	20

Code for parts	Lighting Color	Material	Forward Voltage (V)		Wavelength (nm) typ			Luminous Intensity (mcd)*		I _F (mA)
			typ	max	λ _D	λ _P	Δλ	min	typ	
HT-650UYG	Ultra Bright Yellow Green	AllnGaP	2.0	2.4	573	574	20	25	50	20
HT-650UY	Ultra Bright Yellow	AllnGaP	1.9	2.4	591	593	15	40	80	20
HT-650UD	Ultra Bright Amber	AllnGaP	1.9	2.4	605	609	17	40	80	20
HT-650USD	Ultra Bright Orange	AllnGaP	1.9	2.4	622	636	17	40	80	20
HT-650URO	Ultra Bright Red	AllnGaP	1.9	2.4	632	645	22	25	50	20

Code for parts	Lighting Color	Material	I _F =20mA							I _F =5mA						
			Forward Voltage (V)		Wavelength (nm) typ			Luminous Intensity (mcd)*		Forward Voltage (V)		Wavelength (nm) typ			Luminous Intensity (mcd)*	
			typ	max	λ _D	λ _P	Δλ	min	typ	typ	max	λ _D	λ _P	Δλ	min	typ
HT-650CBS	Blue	GaN	4.2	4.5	466	428	65	2.5	9	-	-	-	-	-	-	
HT-650CB	Blue	InGaN	3.6	4.0	470	468	26	25	60	2.9	3.35	472	470	26	10	20
HT-650CG	Green	InGaN	3.6	4.0	527	518	35	63	150	2.9	3.35	529	520	35	25	50
HT-650NB	Blue	InGaN	3.3	3.9	470	468	40	25	60	2.8	3.15	472	470	40	10	20
HT-650NG	Green	InGaN	3.3	3.9	527	520	40	63	150	2.8	3.15	529	522	40	25	50

*Per NIST standards