

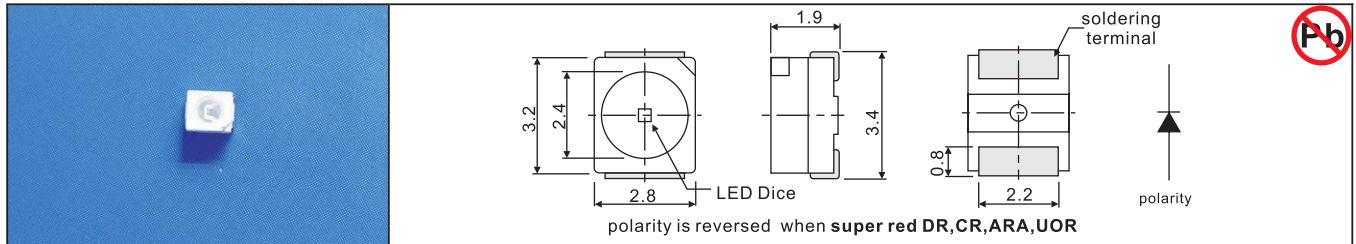
Top LEDs

RoHS Conformity

With Reflector Type 3.4mm(L) X 2.8mm(W) X 1.9mm(H)

IF=20mA Ta=25°C

Device No	Color		Wavelength (nm)		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Emitter	Lens	λp	λd		IV1	IV2	



HTLB2-43	yellow green	water clear	570	567	2.15	18.0	18.0	120
HTLB2-43CG	yellow green		570	567	2.15	25.0	25.0	
HTLB2-43BG	super yellow green		570	567	2.15	35.0	35.0	
HTLB2-43AGC	pure green		523	525	3.50	200.0	200.0	
HTLB2-43B	bluish green		502	505	3.50	120.0	120.0	
HTLB2-44	yellow		589	585	2.10	13.0	13.0	
HTLB2-44AY	super yellow		592	590	2.00	60.0	60.0	
HTLB2-44FY	super yellow		592	590	2.00	90.0	90.0	
HTLB2-44SY	super yellow		592	590	2.25	150.0	150.0	
HTLB2-44UY	super yellow		592	590	2.25	380.0	380.0	
HTLB2-44HY	super yellow		592	590	2.15	400.0	400.0	100
HTLB2-45	hi-eff red		625	618	2.05	10.0	10.0	120
HTLB2-45AO	super orange		620	615	2.00	60.0	60.0	
HTLB2-45FO	super orange		620	615	2.00	90.0	90.0	
HTLB2-45AOR	super fresh red		635	626	2.00	60.0	60.0	
HTLB2-45SOR	super fresh red		638	629	2.25	150.0	150.0	
HTLB2-46DR	super red		660	643	1.80	25.0	25.0	
HTLB2-46CR	super red		660	643	1.80	40.0	40.0	
HTLB2-46ARA	super red		660	645	1.86	65.0	65.0	
HTLB2-46UOR	Super fresh red		638	629	2.15	400.0	400.0	105
HTLB2-46HOR	Super fresh red	638	629	2.15	420.0	420.0		
HTLB2-47	amber	610	606	2.05	12.0	12.0	120	
HTLB2-47FA	super amber	607	605	2.00	90.0	90.0		
HTLB2-47HA	super amber	607	605	2.00	450.0	450.0		
HTLB2-48ABC	super blue	468	470	3.50	48.0	48.0		
HTLB2-48ABD	super blue	468	470	3.40	55.0	55.0		

IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

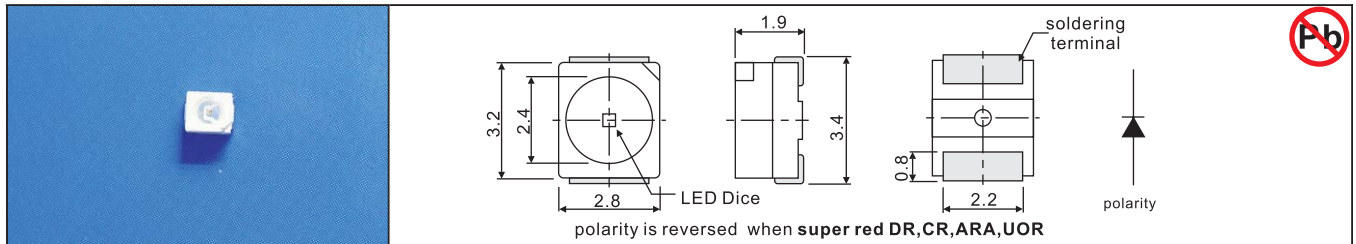
Top LEDs

RoHS Conformity

With Reflector Type 3.4mm(L) X 2.8mm(W) X 1.9mm(H)

IF=20mA Ta=25°C

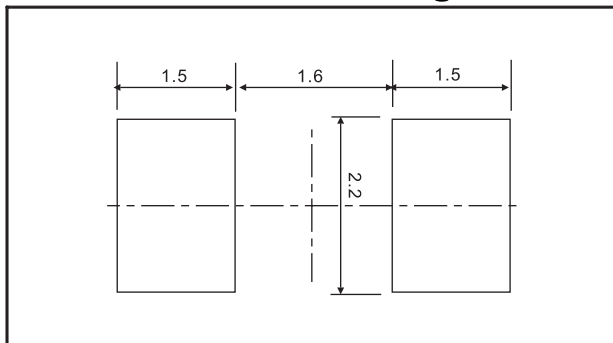
Device No	Color		Wavelength (nm)		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Emitter	Lens	λp	λd		IV1	IV2	



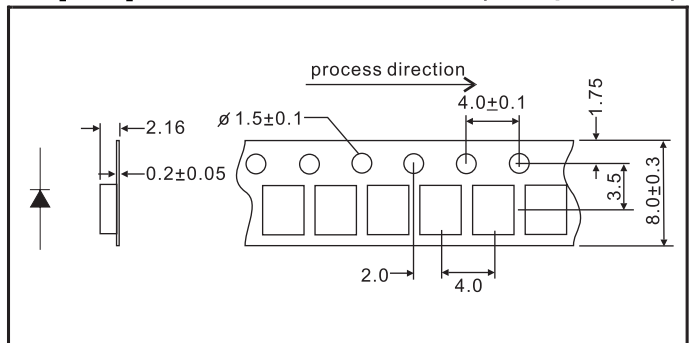
HTLB2-49AWD	super white	diffused yellow	(x:0.29, y:0.30)	3.50	650.0	650.0	120
HTLB2-49AWE	super white		(x:0.29, y:0.30)	3.50	900.0	900.0	
HTLB2-49YWD	warm white		(x:0.40, y:0.41)	3.50	520.0	520.0	
HTLB2-49YWE	warm white		(x:0.40, y:0.41)	3.50	720.0	720.0	

IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

Recommended Soldering Pattern:



Tape Specifications: (2,000pcs/Reel)



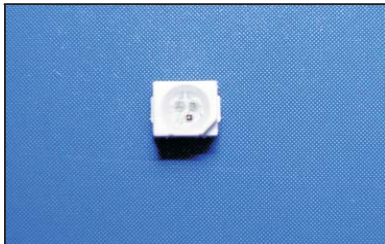
Top LEDs

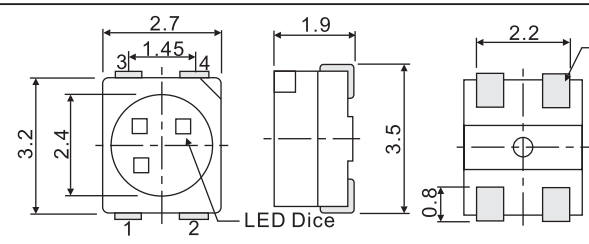
RoHS Conformity

With Reflector Type 3.5mm(L) X 2.7mm(W) X 1.9mm(H)

IF=20mA Ta=25°C

Device No	Color		Wavelength (nm)		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Emitter	Lens	λp	λd		IV1	IV2	






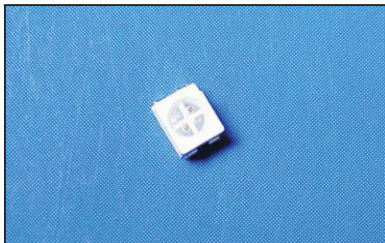
soldering terminal

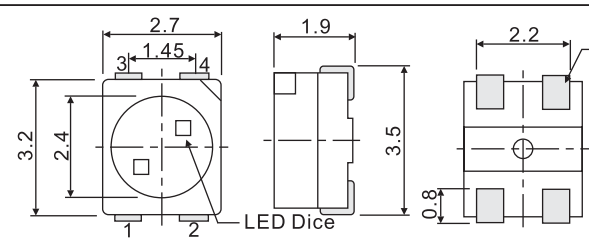
LED Dice

1:Blue Cathode
2:Common Anode
3:Green Cathode
4:Red Cathode



HTLB2-AOR AGC ABC	super fresh red	water clear	635	626	2.00	60.0	60.0	120
	super green		523	525	3.50	150.0	150.0	
	super blue		468	470	3.50	40.0	40.0	






soldering terminal

LED Dice

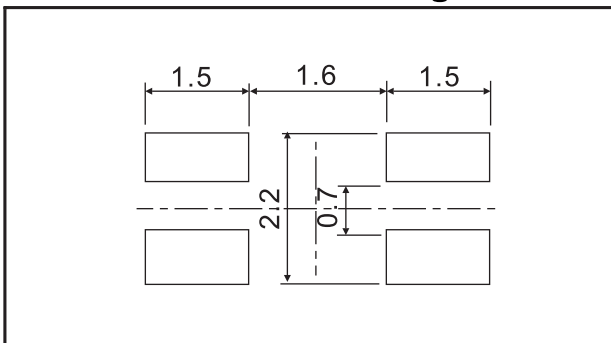
3 4
↓ ↑
1 2
polarity



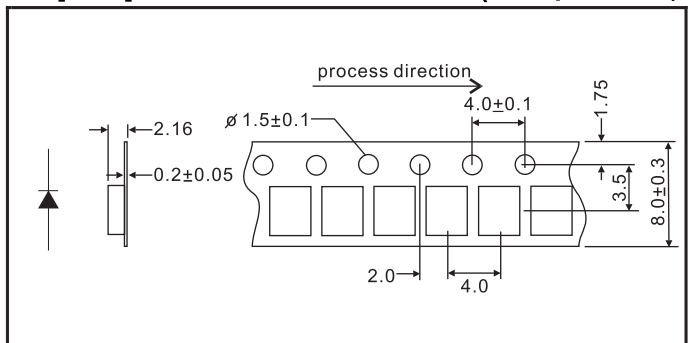
HTLB2-453	hi-eff red	water clear	625	618	2.05	20.0	20.0	120
	yellow-green		570	567	2.15	25.0	25.0	
HTLB2-45AOR3BG	super fresh red		635	626	2.00	60.0	60.0	
	yellow-green		575	572	2.20	35.0	35.0	
HTLB2-45AOR8ABD	super fresh red		635	626	2.00	60.0	60.0	
	super blue		468	470	3.40	55.0	55.0	

IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

Recommended Soldering Pattern:



Tape Specifications: (2,000pcs/Reel)



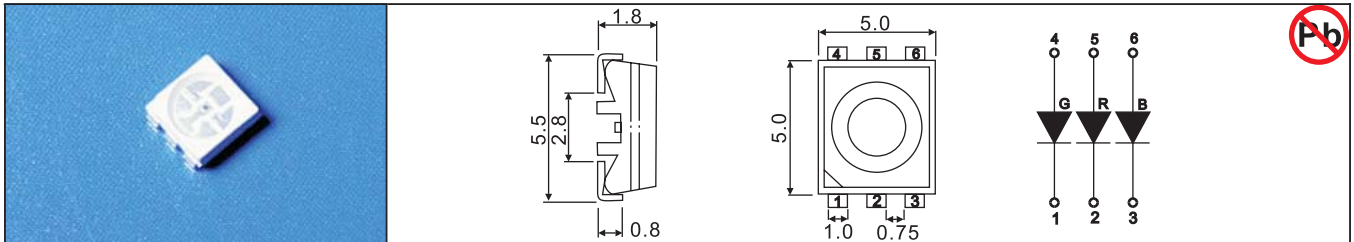
Top LEDs

RoHS Conformity

With Reflector Type 3.5mm(L) X 2.7mm(W) X 1.9mm(H)

IF=20mA Ta=25°C

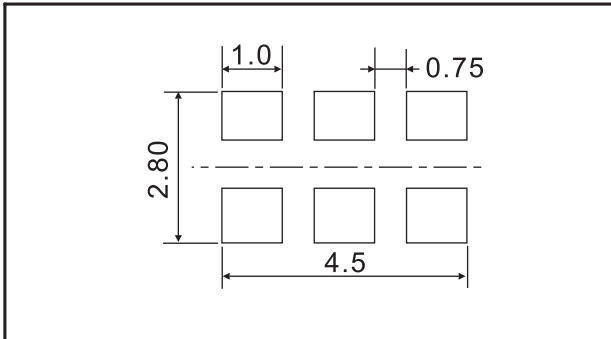
Device No	Color		Wavelength (nm)		VF Typical (V)	Brightness (mcd)		View Angle 2θ1/2
	Emitter	Lens	λp	λd		IV1	IV2	



HTLB4a-AOR AGC ABC	super fresh red	water clear	635	626	2.10	280.0	280.0	120
	super green		523	525	3.50	380.0	380.0	
	super blue		468	470	3.50	150.0	150.0	
HTLB4a-AOR AGC ABC-3	super fresh red	white	635	626	2.10	265.0	265.0	
	super green		523	525	3.50	360.0	360.0	
	super blue		468	470	3.50	142.0	142.0	
HTLB4a-AOR AGC ABC-3B (*The Case is Black)	super fresh red	diffused	635	626	2.10	265.0	265.0	
	super green		523	525	3.50	360.0	360.0	
	super blue		468	470	3.50	142.0	142.0	

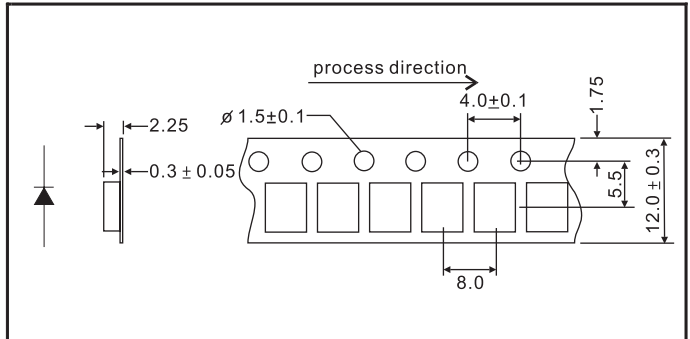
IV1:Labsphere LED-1100 IV2:EXELTRON 2001.

Recommended Soldering Pattern:



Tape Specifications:

(1,000pcs/Reel)

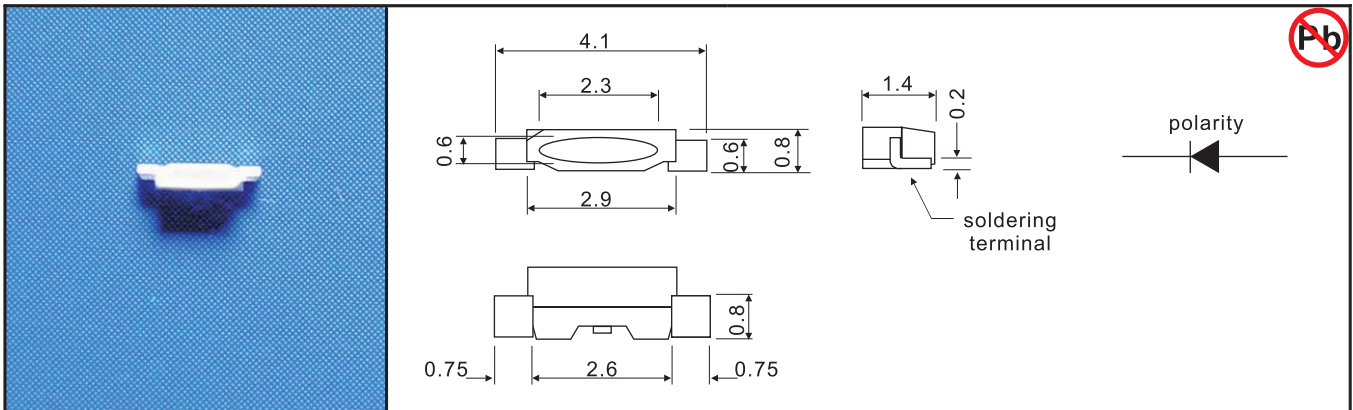


Top LEDs

RoHS Conformity

Side Look Type 1.6mm(L) X 0.4mm(W) X 0.8mm(H)

Ta=25°C



Unit : mm. Tolerance:0.2mm

Device No:HTLS1-49AWE

Opto-Electrical Characteristics

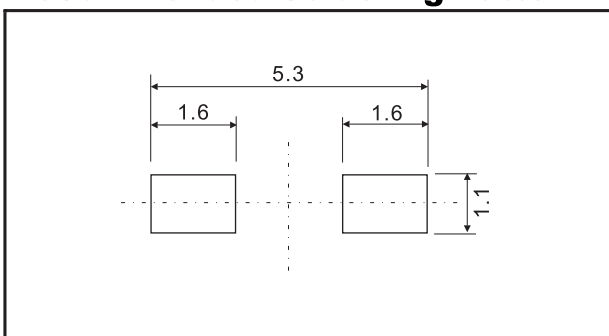
Parameter	Symbol	Condition	Value	Unit
Forward Voltage	VF	IF=20mA	3.0 ~ 3.8	V
CIE	(x,y)	IF=20mA	W1G	(0.31,0.34)-(0.35,0.34)-(0.33,0.30)-(0.29,0.30)
			W1H	(0.29,0.30)-(0.33,0.34)-(0.31,0.36)-(0.27,0.26)
Luminous Intensity	IV	IF=20mA	1000 ~ 1300	mcd
View Angle	θ	IF=20mA	105	deg

Device No:HTLS1-48ABC

Opto-Electrical Characteristics

Parameter	Symbol	Condition	Value	Unit
Forward Voltage	VF	IF=20mA	3.0 ~ 3.6	V
Dominant Wave Length	λd	IF=20mA	465 ~ 472	nm
Luminous Intensity	IV	IF=20mA	300 ~ 500	mcd
View Angle	θ	IF=20mA	110	deg

Recommended Soldering Pattern:



Tape Specifications:

(3,000pcs/Reel)

