SINCE 1981

TAPE AND REEL SURFACE MOUNT CHIP LED LAMPS

SURFACE MOUNT CHIP LED LAMP SPECIFICATION

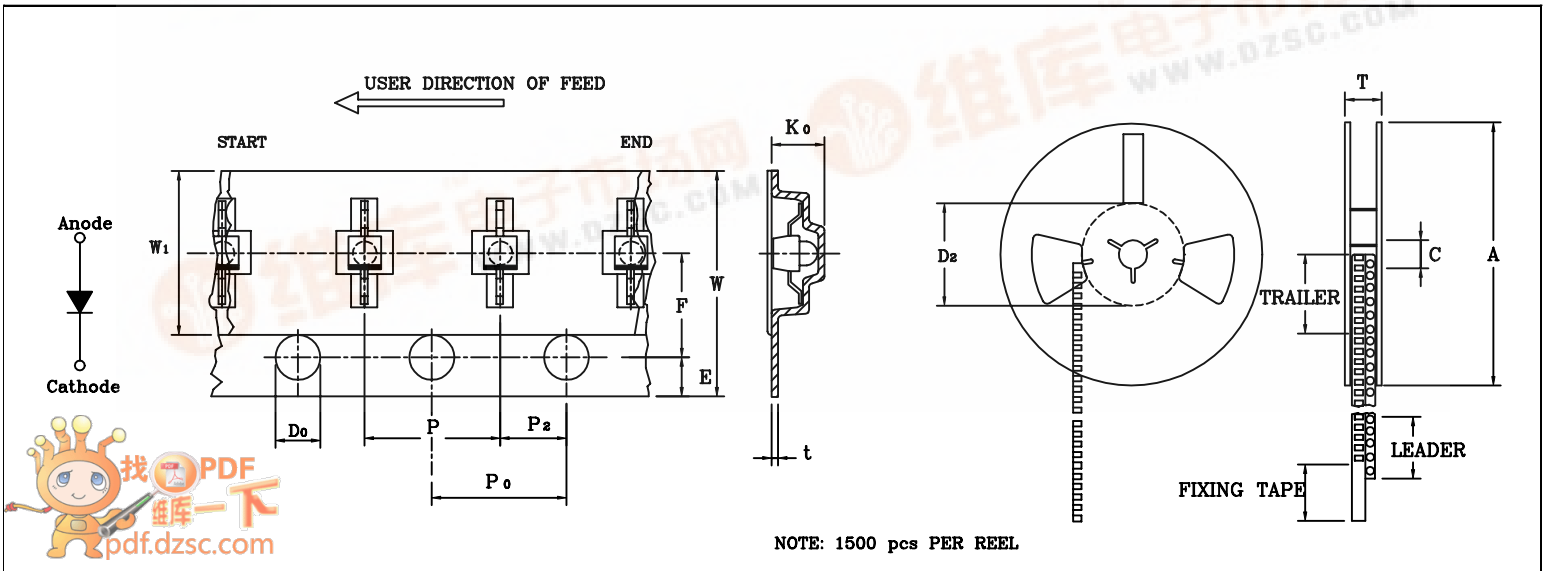
●**DEVICE NUMBER：BL-XUB361-TR9** **VERSION：1.0 / 2001.06.07**

●FEATURES:

Compatible with automatic placement equipment
Surface Mount assembly lamp
High efficiency low power consumption
Long life solid state reliability

●TAPPING AND PACKAGING SPECIFICATION

ITEM	SYMBOL	SPECIFICATION			
		Minimum		Maximum	
		mm	inch	mm	inch
Tape Feed Hole Diameter (DIA)	D_0	1.40	0.055	1.55	0.061
Feed Hole Location	E	1.65	0.065	1.85	0.072
Centers Line Dimensions Length Direction	F	5.45	0.215	5.55	0.218
Compartment Depth	K_0	3.10	0.122	3.20	0.126
Compartment Pitch	P	3.90	0.153	4.10	0.161
Sprocket Hole Diameter	P_0	3.90	0.153	4.10	0.161
Centers Line Dimensions Length Direction	P_2	1.95	0.076	2.05	0.080
Carrier Tape Thickness	t	-	-	0.30	0.012
Carrier Tape Width	W	12.00	0.472	12.30	0.484
Flange Diameter	A	178.0	7.008	180.0	7.087
Hub Spindle Hole	C	12.50	0.492	13.50	0.531
Hub Diameter	D_2	20.00	0.788	21.50	0.846
Fixing Tape Width	W_1	9.00	0.354	9.30	0.366
Flange Space Between Flanges	T	16.00	0.629	18.40	0.724
Compartment Length	A_0	1.97	0.077	2.05	0.080
Compartment Width	B_0	6.40	0.250	6.50	0.256



NOTE: 1500 pcs PER REEL

BRIGHT LED ELECTRONICS CORP.

SURFACE MOUNT CHIP LED LAMP SPECIFICATION

●COMMODITY：AXIAL TYPE LED

●DEVICE NUMBER：BL-XUB361-F9 **VERSION：1.0 / 2001.06.07**

●ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25℃)

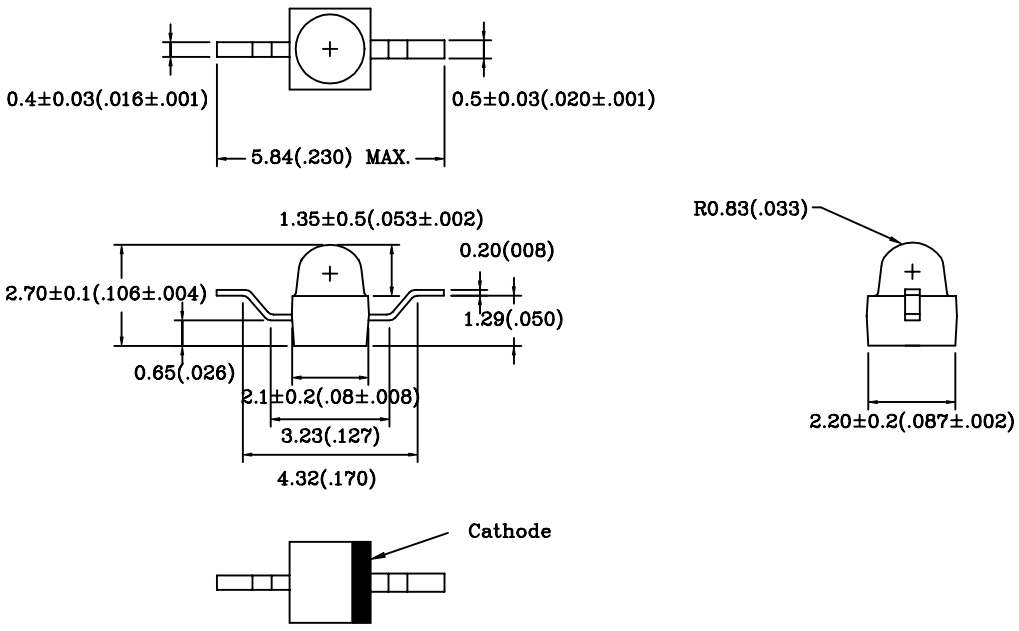
Chip		Lens Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)			Viewing Angle 2θ1/2 (deg)
Emitted Color	Peak Wave Length λP(nm)		Δλ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V) Typ.	Vf(V) Max.	Iv Typ. (mcd)	
Ultra Red	645	Water Clear	20	80	30	150	2.0	2.6	150.0	35

Remark：Viewing angle is the Off-axis angle at which the luminous intensity is half the axial luminous intensity.

●ABSOLUTE MAXIMUN RATINGS (Ta=25℃)

Reverse Voltage 5V
Reverse Current (-Vr=5V) 100μA
Operating Temperature Range ..... -25℃ ～ 80℃
Storage Temperature Range ..... -30℃ ～ 85℃
Preheating Temperature ..... 100℃ ~ 150℃ Within 2 Minutes
Soldering Temperature ..... 240℃ ~ 250℃ Within 5 Seconds

●PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters (inches).

2.Tolerance is ± 0.25mm (0.01") unless otherwise specified.

3.Specifications are subject to change without notice.

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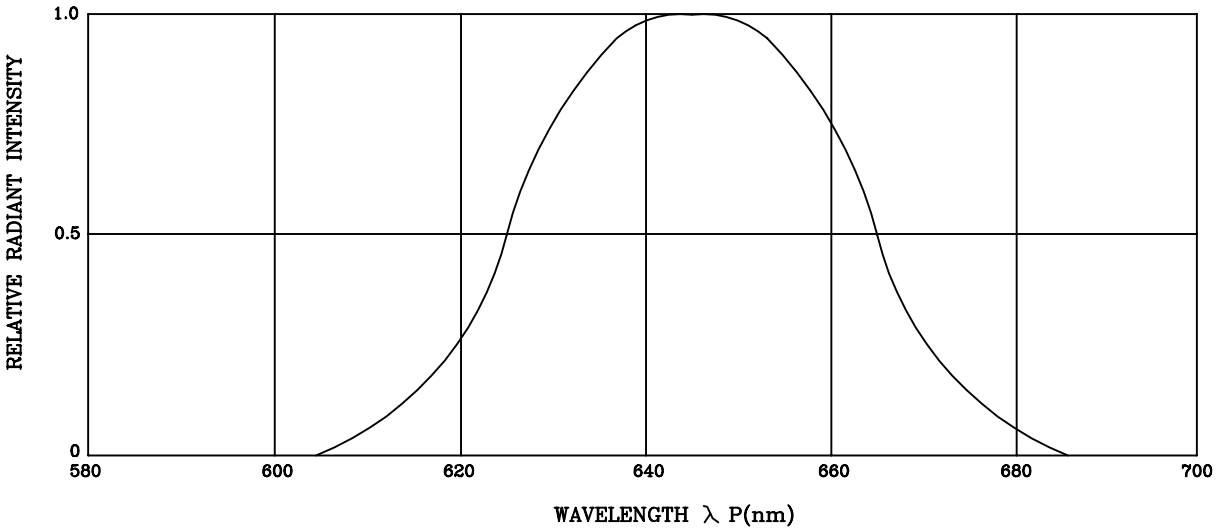
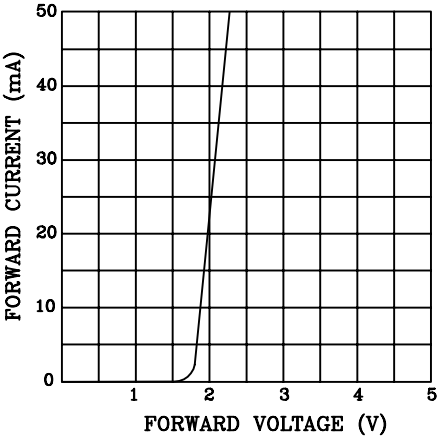
TYPICAL CHARACTERISTICS

DEVICE NUMBER: BL-XUB361-TR9

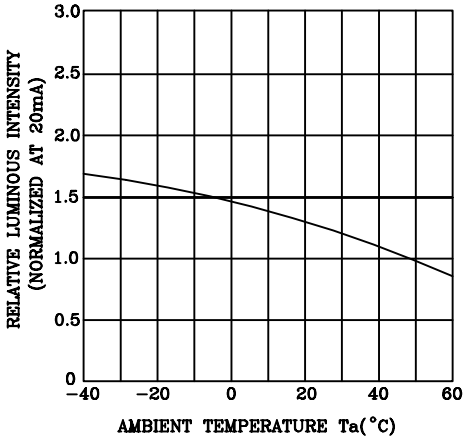
SPECTRAL DISTRIBUTION



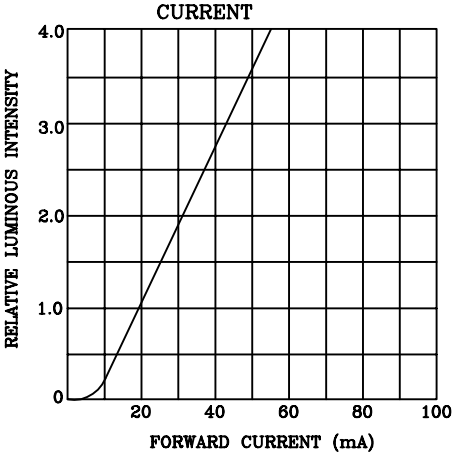
FORWARD CURRENT VS. FORWARD VOLTAGE



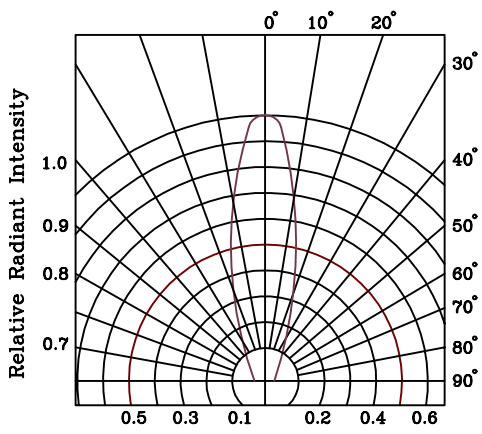
RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



RADIATION DIAGRAM



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RELIABILITY TEST

DEVICE NO.: BL-XUB361-TR9

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021 :B-1	Connect with a power If=20mA Ta=Under room temperature Test time=1,000hrs	0/20
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	Ta=+65℃±5℃ RH=90%-95% Test time=1,000hrs	0/20
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High Ta=+85℃±5℃ Test time=1,000hrs	0/20
	Low Temperature Storage	JIS-C-7021 :B-12	Low Ta=-35℃±5℃ Test time=1,000hrs	0/20
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4	-35℃ ～+25℃ ～+85℃ ～+25℃ 60min 20min 60min 20min Test Time=5cycle	0/20
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	+85℃±5℃ ～-35℃±5℃ 20min 20min Test Time=10cycle	0/20
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	Preheating： 140℃-160℃,within 2 minutes. Operation heating： 235℃(Max.),within 10 seconds.(Max.)	0/20

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
F0rward voltage	VF (V)	IF=20mA	Over Ux1.2
Reverse current	IR(uA)	VR=5V	Over Ux2
Liminous intensity	IV (mcd)	IF=20mA	Below SX0.5

Note: 1.U means the upper limit of specifide characteristics. S means initial value.

2.Measurment shall be taken between 2 hours and after the test pieces have been returned to normal ambient conditions after completion of each test.