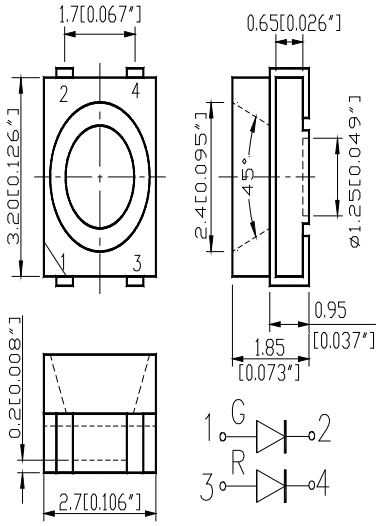
REFLECTOR COATING TYPE HIGH-PERFORMANCE LEDs

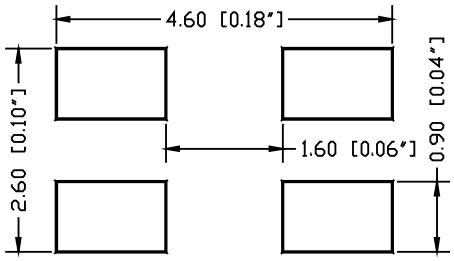
High Performance SMD Multi-Chip Top LEDs

Part Number: 776UR/ANB

Package outlines



RECOMMEND PAD LAYOUT



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

ITEM	MATERIALS	
Resin	Epoxy	
Bonding Wire	□ 25 μm Au	
Lens color	Water transparent	
Dice	Red	AlGaInP
	Green	GaInN

NOTES:
1. All dimensions are in millimeters (inches);
2. Tolerances are ±0.2mm (0.008inch) unless otherwise noted.

Rev :	Date	Drawn by :	Checked by :	Approved by :
A	2006/9/14			

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Absolute maximum ratings (T_A=25□)

Parameter	Symbol	Value		Unit
		R	G	
Power dissipation	Pd	75	114	mW
Forward current	If	30		mA
Reverse voltage	Vr	5		V
Operating temperature range	Top	-20 ~+80		□
Storage temperature range	Tstg	-20 ~+80		□
Peak pulsing current of Red (1/8 duty f=1kHz)	Ifp	125		mA

Electro-optical characteristics (T_A=25□)

Parameter	Test Condition	Symbol		Value			Unit
				Min	Typ	Max	
Wavelength at peak emission	If=20mA	λpeak	R	--	640	--	nm
			G	--	520	--	
Spectral half bandwidth	If=20mA	□λ	R	--	20	--	nm
			G	--	30	--	
Dominant wavelength	If=20mA	λdom	R	625	630	635	nm
			G	520	525	530	
Forward voltage	If=20mA	Vf	R	--	2.0	2.5	V
			G	--	3.3	3.8	
Luminous intensity □1	If=20mA	Iv	R	100	--	--	mcd
			G	500	--	--	
Viewing angle at 50% Iv	If=10mA	2θ1/2		--	120	--	Deg
Reverse current	Vr=5V	Ir		--	--	10	μA

□1 Note: Luminous intensity tolerance is ±10□.

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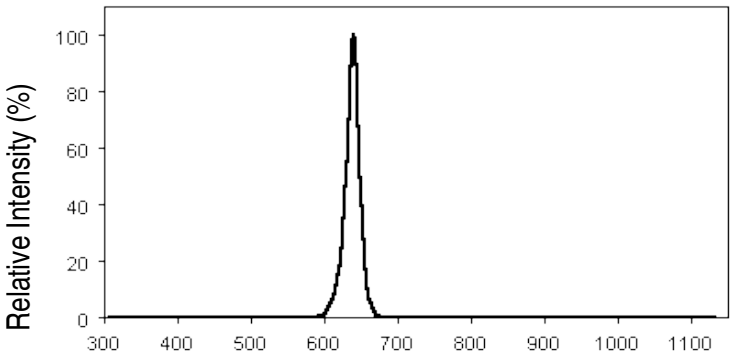
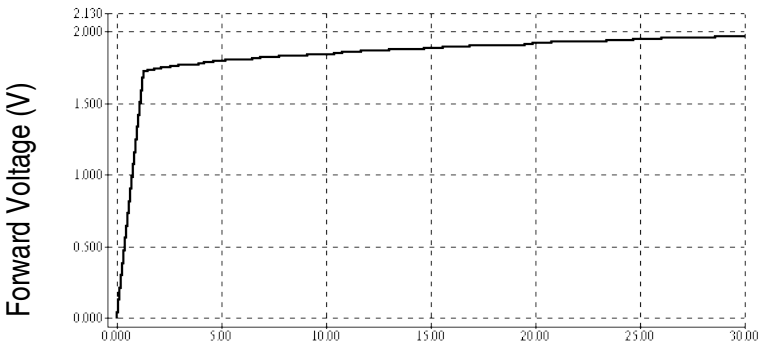
OPTICAL CHARACTERISTIC CURVES (Red)

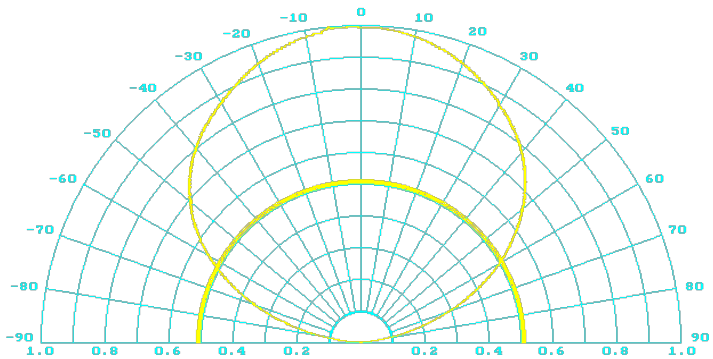
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics

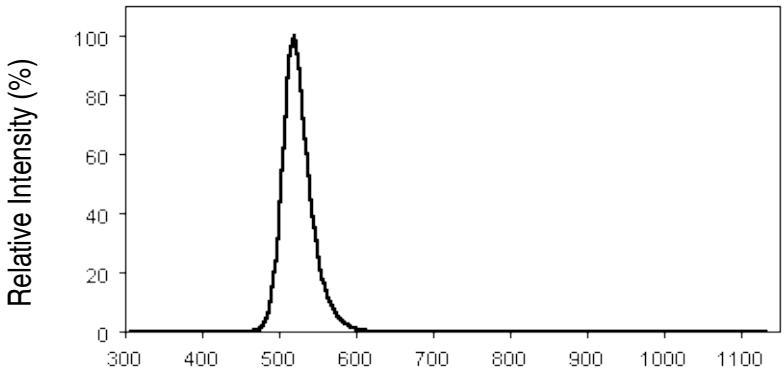


REFLECTOR COATING TYPE HIGH-PERFORMANCE LEDs

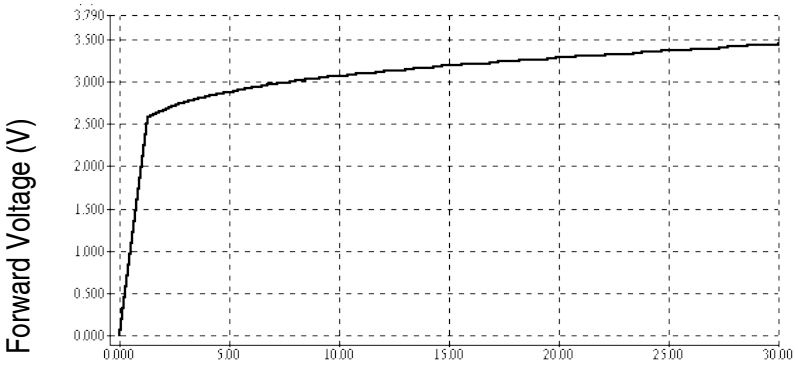
Part Number: 776UR/ANB

OPTICAL CHARACTERISTIC CURVES (Green)

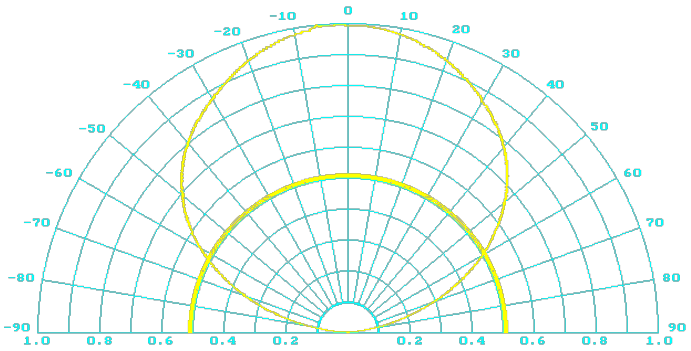
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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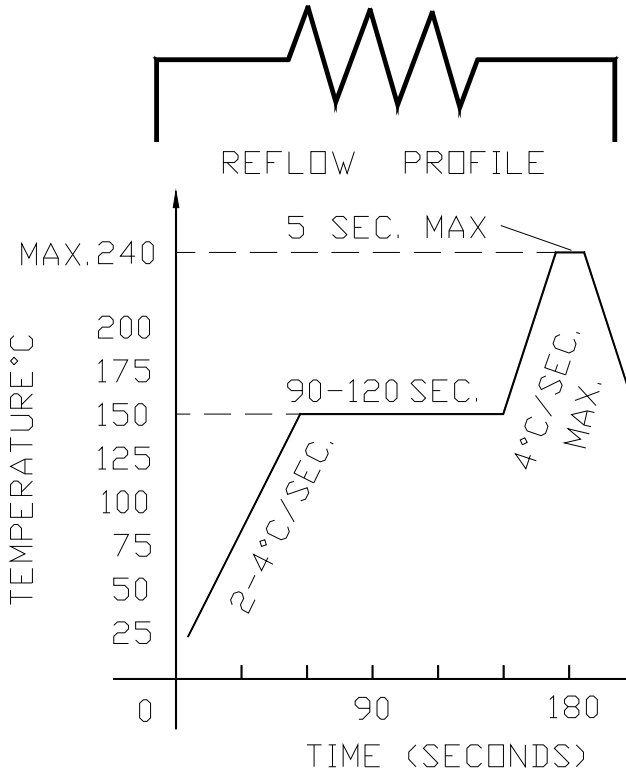
Test circuit and handling precautions

Reflow Profile

■ Test circuit

■ Reflow Te



■ Ha

1. O

use

2. Shelf life in sealed bag: 12 month at 5□~30□ and □60% R.H;

3. After the package is Opened:

3.1. It is recommended to baking before the first use:

■Soldering iron.

Baking condition:

Basic spec is □ 5sec when 260□. If temperature is higher, time should be shorter (+10□→-1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230□ .

a. 60±3□ x (36~48hrs) and □5% RH; taped reel type□

b. 110±3□ x (8~16hr), bulk type□

3.2 The products should be used within a week:

a. It is recommended to baking before soldering when the pack is unsealed after 72hrs□

b. Baking condition as 3.1 baking condition.

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Test items and results of reliability

Type	Test Item	Test Conditions	Note	Number of Damaged
Environmental Test	Temperature Cycle	-20℃ 30min ↑↓ 80℃ 30min	100 cycle	0/22
	Thermal Shock	-20℃ 15min ↑↓ 80℃ 15min	100 cycle	0/22
	High Humidity Heat Cycle	30℃⇔ 65℃ 90%RH 24hrs/1cycle	10 cycle	0/22
	High Temperature Storage	T_a=80℃	1000 hrs	0/22
	Humidity Heat Storage	T_a=60℃ RH=90%	1000 hrs	0/22
	Low Temperature Storage	T_a=-30℃	1000 hrs	0/22
Operation Test	Life Test	T_a=25℃ I_F=20mA	1000 hrs	0/22
	High Humidity Heat Life Test	60℃ RH=90% I_F=10mA	500 hrs	0/22
	Low Temperature Life Test	T_a=-20℃ I_F=20mA	1000 hrs	0/22