

Sample Approval Sheet

Customer Name:
MET
Product Name:
3.5x2.8x1.9mm Pure White SMD LED
Model:
OSW5SCS3C1A-LL
Date:
Jul.11, 2008

Optosupply

Prepared by	Checked by	Approved by	Marketing Dept.
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CUSTOMER CONFIRMATION

Confirmed by	Checked by	Approved by

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LED & Application Technologies

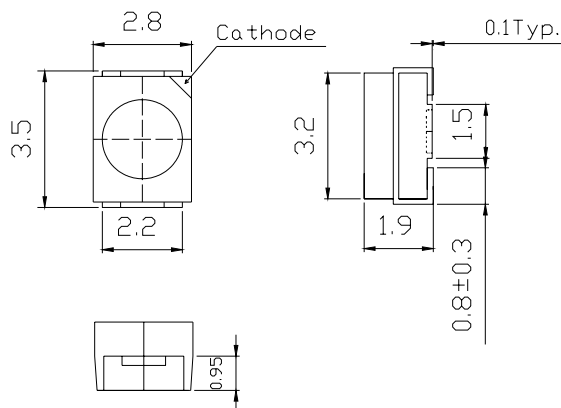

■Features

- High Luminous PLCC2 Top SMD LEDs
- 3.5x2.8x1.9mm Standard Directivity
- Superior Weather-resistance
- Long Operating Lifetime (Up to 100,000 hours)
- TTW soldering, IR reflow soldering
- Water Clear Type

■Applications

- Automotive Dashboard Lighting
- Traffic Signal Lamp
- Back Lighting
- Other Lighting
-

■Outline Dimension

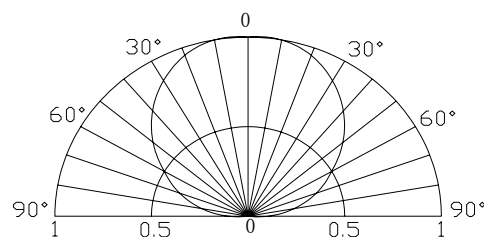


■Absolute Maximum Rating (Ta=25 °C)

Item	Symbol	Value	Unit
DC Forward Current	I_F	30	mA
Pulse Forward Current*	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	108	mW
Operating Temperature	T_{opr}	-30 ~ +85	
Storage Temperature	T_{stg}	-40 ~ +100	
Lead Soldering Temperature	T_{sol}	260 /5sec	-

*Pulse width Max.10ms , Duty ratio max 1/10

■Directivity



■Electrical -Optical Characteristics (Ta=25 °C)

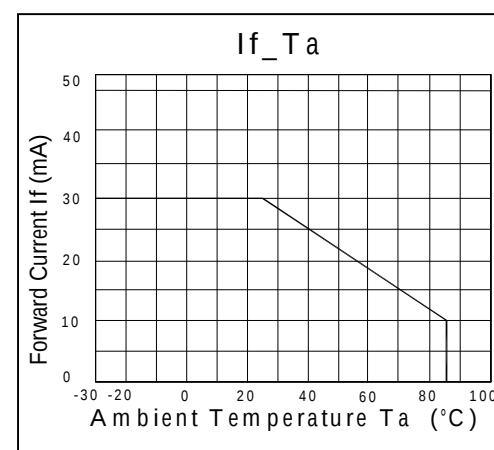
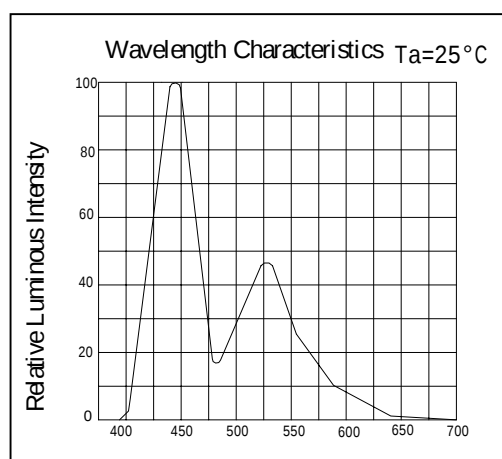
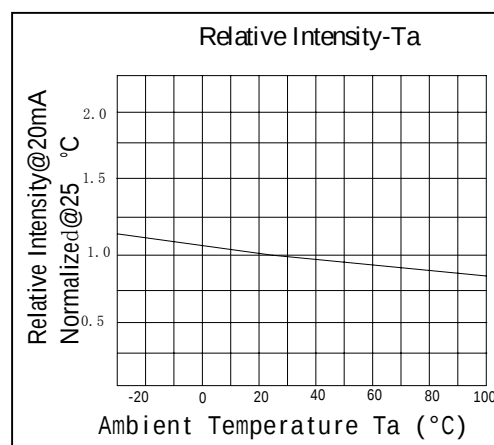
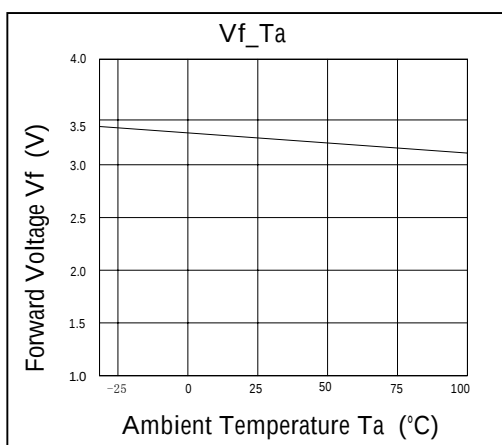
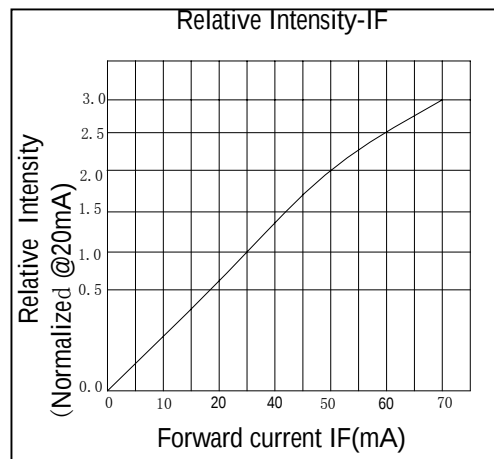
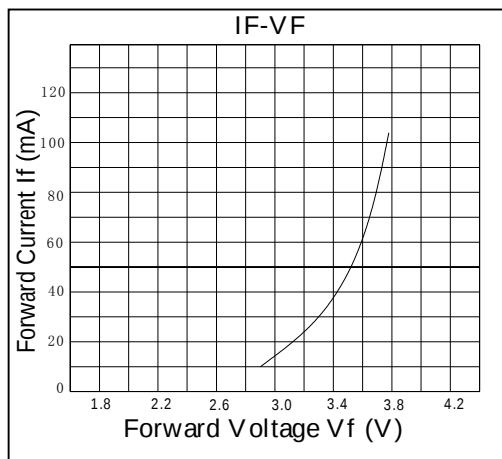
Item	Symbol	Condition	Min.	Typ	Max.	Unit
DC Forward Voltage	V_F	$I_F=20mA$	2.9	3.1	3.6	V
DC Reverse Current	I_R	$V_R=5V$	-	-	10	μA
Luminous Intensity	I_v	$I_F=20mA$	1120	1350	1560	mcd
Color Temperature	CCT	$I_F=20mA$	-	6500	-	K
Chromaticity Coordinates*	x	$I_F=20mA$	-	0.31	-	-
	y	$I_F=20mA$	-	0.33	-	-
50% Power Angle	$2\theta_{1/2}$	$I_F=20mA$	-	120	-	deg

*1 Tolerance of chromaticity coordinates is $\pm 10\%$

*2 Tolerance of luminous intensity is $\pm 15\%$

InGaN LED

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES



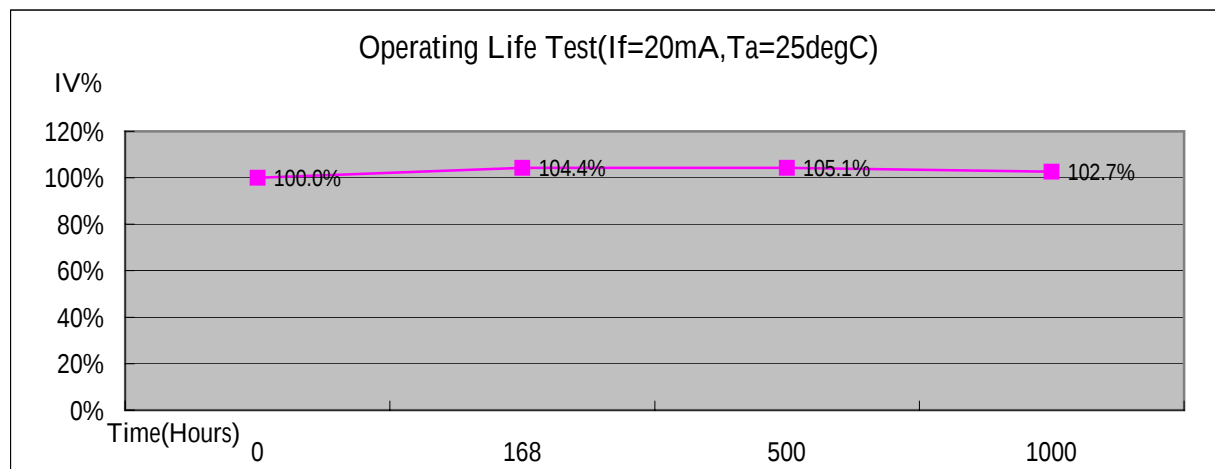
RELIABILITY TEST REPORT

CLASSIFICATION	TEST TIME	TEST CONDTION
ENDURANCE TEST	OPERATION LIFE	If: 20mA Ta:25±5 TEST TIME=1000HRS(-24HRS,+72HRS)
	HIGH TEMPERTURE HIGH HUMIDITY STORAGE	R.H:90~95% Ta:65±5 TEST TIME=240HRS(+2HRS)
	HIGH TEMPERTURE STORAGE	Ta:105±5 TEST TIME=500HRS(-24HRS,+48HRS)
	LOW TEMPERTURE STORAGE	Ta:-55±5 TEST TIME=500HRS(-24HRS,+48HRS)
ENVIRONMENTAL TEST	TEMPERTURE CYCLING	105 ~25 ~-55 ~25 60min 10min 60min 10min 20cycles
	THERMAL SHOCK	105 ~-55 10min 10min 10cycles
	SOLDER RESISTANCE	Ta:260±5 TEST TIME=10±1sec
	SOLDERABILITY	Ta:230±5 TEST TIME=5±1sec

JUDGMENT CRITERIA OF FALURE FOR THE RELIABILITY

MEASURING ITME	SYMBOL	CONDITIONS	FAILURE
LUMINOUS INTENSITY	IV	IF=20mA	IV<0.5*INITIAL VALUE
FORWARD VOLTAGE	VF	IF=20mA	VF>1.2*INITIAL VALUE
REVERSE CURRENT	IR	Vr=5V	IR>2*SPEC

OPERATION LIFE TEST LUMINANCE RATE CURVE



*Burn-in condition: 20mA

*Projection of Statistical Average Light Output Degradation Performance for LED Technology Extrapolated from OptoSupply QA Dept. Test Data.

*According to OptoSupply outgoing Packaged Products Specification

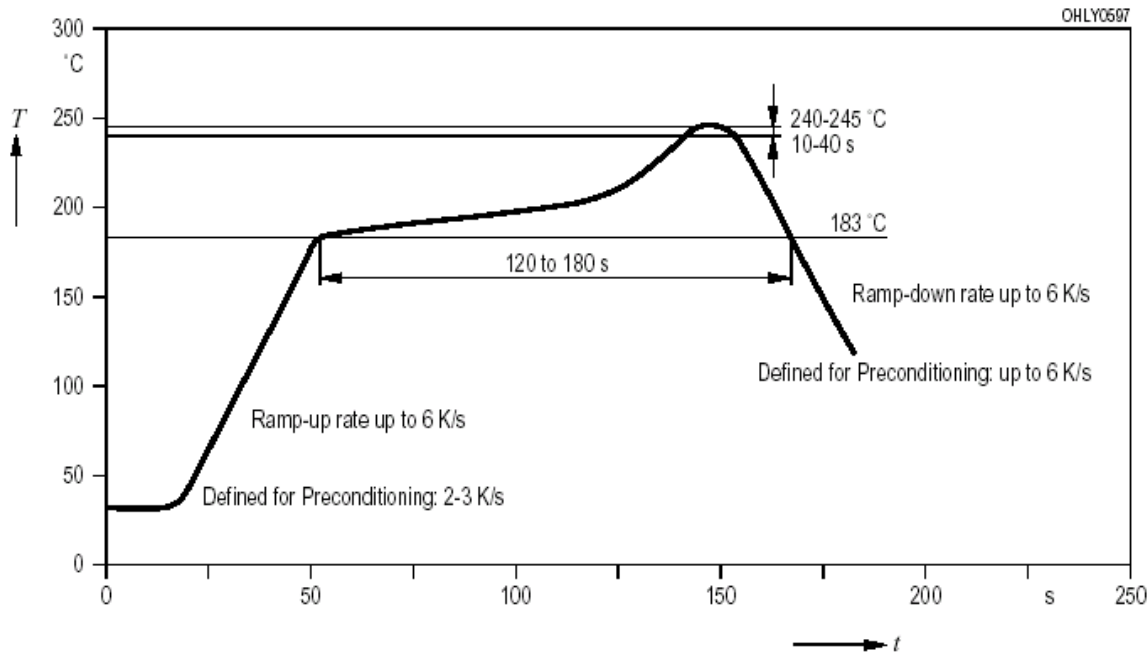
*MTBF:100,000hrs, 90% Confidence (A Failure is Any LED Which is Open, shorted or fails to Emit Light)

*The Projected Data is Base on The Feature of LED Itself Under Normal Operation Conditions.

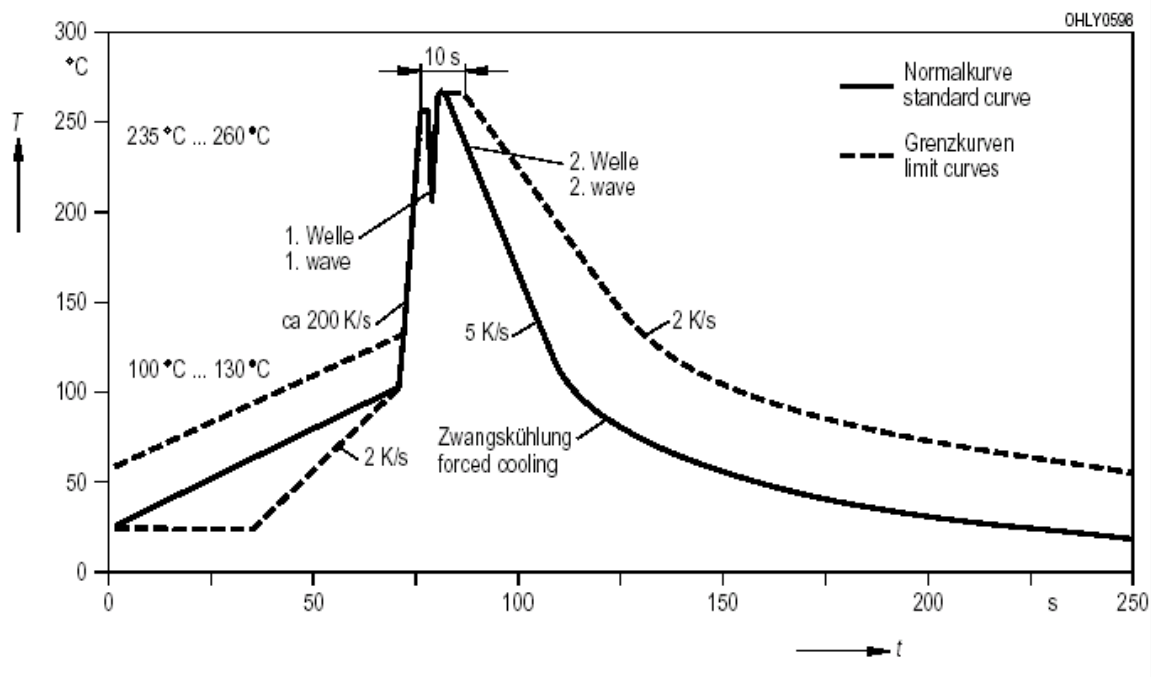
*Any Improper Circuit Design or External Factors Might Cause a Different Result.

Soldering Heat Reliability (DIP):

1. IR Reflow soldering Profile

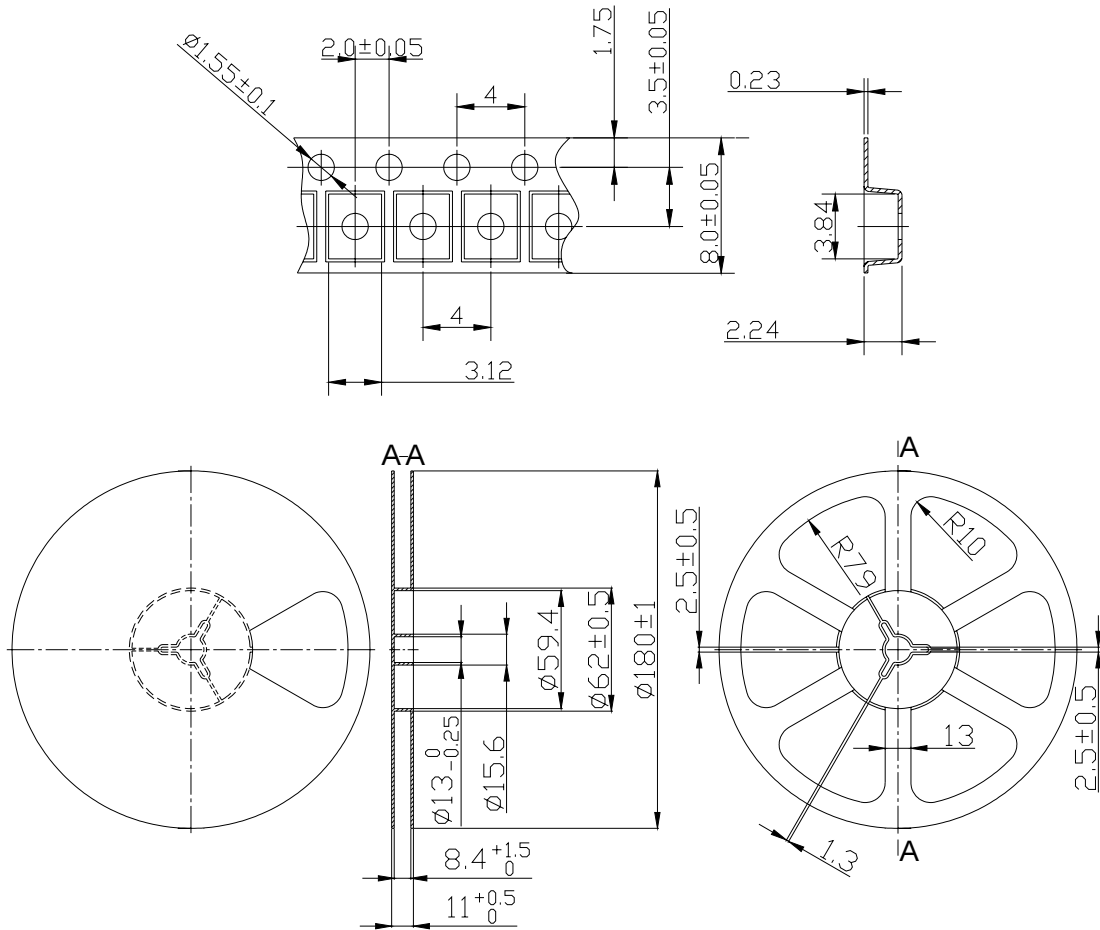


2. TTW Soldering:



PACKING

PACKING DIMENTIONS



Notes:

1. Unit: mm
2. 2000pcs/Reel